THE SYNTAX AND MORPHOLOGY OF DEFAULT CASE

By

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To my parents

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KEY TO ABBREVIATIONS

A	accusative
ABL	ablative
ABS	absolutive
CAUS	causative marker
CL	classifier
COMP	complementizer
COP	copula
D	dative
DEC	declarative
DES	desiderative
EL	elative
EP	epicene
ERG	ergative
F	female
FUT	future tense
GEN	genitive
HON	honorification marker
ILL	illative
IMP	imperfective
INF	infinitive
INST	instrumental
LOC	locative
M	male
N	nominative
NEG	negation
NT	neuter
NML	nominalizer
PAR	partitive
PART	particle
PAST	past marker
PL	plural marker
POSS	possessive
POT	potential
PRES	present tense
PROG	progressive
Q	interrogative marker
SG	singular
SUB	subjunctive
TOP	topic marker
VA	verbal affix

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THE SYNTAX AND MORPHOLOGY OF DEFAULT CASE

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This dissertation investigates some consequences of the theory of default case within the combined theoretical framework of the Minimalist Program and Distributed Morphology. With the former, I endorse the notion that all lexical items may be *optionally* assigned morphological case features in the lexicon. With the latter, I endorse a "late" insertion of vocabulary items and propose that any lexical items with no case features during the computation are assigned m-case features at the PF interface by default.

Since case features are taken to be erased once they are checked in the minimalist theory, the final destination of DPs in movement should be a position where their case features are checked. This in turn implies that DPs without case features are not stuck in a given position and can move further for feature checking. I argue that this is evidenced by the availability of "superraising," the phenomena of which are found across languages.

Superraising, in this dissertation, takes place in two circumstances; the subject of a finite embedded clause moves out of a finite CP boundary, and a nonsubject DP moves

beyond the subject of an embedded clause to the matrix position as one instance of ECM raising. Superraising is made possible by a default case mechanism on a par with the availability of double Specs of a single head H, in which an outer Spec of H serves as an escape hatch in the sense of Ura.

I illustrate the phenomenon of superraising in various constructions such as subject-to-subject raising (SSR) constructions, double nominative constructions, and dative subject constructions (DSCs). The subject of a finite embedded clause may raise into the subject position of the matrix clause across a finite CP boundary in SSR constructions. The THEME object in DSCs can be ECMed beyond the EXPERIENCER subject; it first raises into an outer Spec of the embedded T and then into the Spec of the matrix *v* in order to have its accusative case feature checked. Raising in these instances is made possible by the default case mechanism, by virtue of which the raised element is not stuck in the Spec of the embedded T and moves further to the matrix position. This is where the default case mechanism finds its explanatory power, and thus it contributes to building a new insight into licensing DPs by the EPP, not by abstract case.

CHAPTER 1
INTRODUCTION AND THEORETICAL FRAMEWORK

1.1. Issues

1.1.1. Feature Checking vs. Feature Addition

In many syntactic theories, including the GB theory and the Minimalist Program advocated by Chomsky (1993, 1994, 1995), the computational system C_{HL} (the "syntax" broadly construed) is assumed to operate on items chosen from the lexicon. Lexicon in the spirit of these syntactic theories is reserved for the list of the set of bundles of features that are input to the computational system of grammar and are relevant to this system. These bundles of features are the terminal nodes of the computational system. However, it is the inflectional features such as tense, case, and agreement that actually play a role in the computation. Given the general assumption that such inflectional features need not be listed in the lexicon, they are assumed to be acquired by lexical items in one way or another. The issue arises as to how these features are acquired in connection with the computational system. Two different syntactic theories are in order.

First of all, in the minimalist theory all lexical items are assumed to have their own categorial features, which are intrinsic, and to acquire such inflectional features as tense, case, and agreement in the lexicon. That is, all lexical items are fully inflected for features through affixation in the lexicon when they are inserted in the syntactic derivation of a sentence. A verb stem, for example, picks up inflectional features such as tense and agreement in the lexicon. In Chomsky (1995: 239) it is assumed that tense and agreement

features (phi-features) are optionally chosen by the numeration. The verb, fully inflected for such features, now participates in syntactic operations such as head movement and adjunction to check those features that are already present in the lexicon. Syntactic operations in this system, therefore, are motivated to take place solely for feature checking between a lexical item and its appropriate functional category.

In contrast to the picture presented by the minimalist theory, in Distributed Morphology (DM), put forth by Halle and Marantz (1993) and extended by their subsequent work (Marantz 1996, Halle 1997), all lexical items such as stems and affixes are assumed to contain only morphosyntactic features when they enter the syntactic derivation of a sentence. Stems are assumed to pick up inflectional features, bundled in terminal nodes, through various mechanisms that are either syntactic or rely on syntactic structure. A verb stem, for example, is assumed to obtain inflectional features such as tense and agreement via head movement and adjunction, which affix an inflectional morpheme to a stem. Syntactic operations in this system, therefore, are implemented to provide a stem in the lexical entry with inflectional features, the process of which is what Halle and Marantz (1993) call "feature addition."

1.1.2 Early vs. Late Insertion

Words are taken to be constructed out of morphemes by a set of rules called Word Formation Rules (WFR). WFRs work by selecting morphemes from the lexicon and combining them in various ways. There are three questions that we are concerned with in connection with the operation of WFRs. First, what counts as a morpheme in the lexicon?

There are two different positions with regard to the treatment of a morpheme. One position, which is represented by Anderson (1992) and Beard (1995), proposes that only stems of the major lexical categories such as nouns, verbs, and adjectives be treated as morphemes. Affixes in this position are simply attached to the stems by WFRs. The other position, advocated by Lieber (1992), Halle and Marantz (1993), Marantz (1996), and Halle (1997), endorses the notion that not only lexical stems but also affixes are morphemes.

Second, what exactly is listed in the lexicon? To put it differently, what information should the lexicon provide to a set of word formation rules? In Lieber (1992) and Chomsky (1995), the lexicon is to provide all the information required for word formation in the syntax for the former and in the lexicon for the latter; the information includes semantic, morphosyntactic, and phonological features. In contrast, Halle and Marantz (1993) significantly deviate from the two by separating these features. They assume that at LF, DS, and SS, terminal nodes consist exclusively of morphosyntactic/semantic features and lack phonological features. Both morphosyntactic and semantic features at these levels are drawn from a set made available by UG.

Marantz (1996) further separates semantic features from morphosyntactic ones and thus reduces the size of the lexicon to the extent that only morphosyntactic features should be listed in the lexicon. He decomposes the lexicon as described in Lieber and Chomsky into three sorts of lists of items that belong to our grammatical knowledge, what Marantz (1996) calls the Lexicon, the Vocabulary, and the Encyclopedia. Here is his definition of the Lexicon (p. 5):

(1) Lexicon: The (generated) list of bundles of features that enter the computational system; contains only those features relevant to the principles of syntax. What features appear in these bundles is determined by general principles and perhaps language-particular inventories and co-occurrence restrictions.

Definition (1) strictly enforces that any nonmorphosyntactic features irrelevant to the computational system should not be part of lexical items. He suggests that only features that actually play a role in the computation should be included in the list of the lexicon, which he calls "pure" lexicon to distinguish it from that of other lexicalist theories.

Third, which component of a grammar is responsible for word formation? For many theorists, WFRs are housed in their own independent component of the grammar. The aforementioned researchers, Lieber, Chomsky, and Halle/Marantz, differ with regard to this issue. First of all, Lieber and Halle/Marantz agree in that word formation takes place in the syntax. In their theory, lexical items such as affixes and stems combine to create words manipulated by the syntax. Word formation in the syntax involves head movement, merger, and so on. Chomsky (1993, 1995), on the other hand, rests on the notion that words are completely formed in the lexicon; words are built up featurally and phonologically from lexical pieces, not from any syntactic operations such as head movement, merger, and so on. In his system, features that are associated with a lexical item but not predictable from its lexical entry are assumed to be acquired via affixation when the lexical item enters the numeration.

With respect to lexical (Vocabulary for Halle/Marantz) insertion, we can regroup the foregoing approaches. For Lieber and Chomsky, lexical insertion takes place in the syntax, where lexical insertion is taken to insert lexical items into appropriate terminal nodes in phrase structure. In the former lexical items such as affixes and stems are inserted into

the syntax to form a complete word, but in the latter completely formed words are inserted into the syntax to have their morphological features checked. In both of them, the entries that make up the lexicon of a language are each composed of phonological, morphosyntactic, and semantic features. Lexical items are assigned phonological features by lexical entries, which relate bundles of morphosyntactic features to bundles of phonological features. Marantz (1996: 5) describes as a computational lexicon the process of connecting these features within the lexicon, and he calls it an "early" lexical (Vocabulary for him) insertion.

In contrast, Halle and Marantz (1993), Marantz (1996), and Halle (1997) endorse a "late insertion" of Vocabulary items. Halle and Marantz (1993) assume that at LF, DS, and SS, terminal nodes consist exclusively of morphosyntactic/semantic features and lack phonological features, since the latter play no role in the computation. Marantz (1996) further excludes as lexical features any semantic features for the same reason. Finally, he came up with the notion of the "pure" Lexicon as defined in (1). Now morphemes at the terminal node, which have only morphosyntactic features, undergo various syntactic operations such as head movement, merger, fusion, fission, and so on. At PF (MS in Halle and Marantz 1993), they are assigned phonological features via Vocabulary insertion, where Vocabulary is defined as follows (p. 5):

(2) Vocabulary: Vocabulary items are connections between lexical features and phonologically relevant features. All the Vocabulary items compete for insertion at each terminal node, but in the phonological component (i.e., after "spell-out").

Vocabulary insertion is governed by what Halle (1997: 428) calls the Subset Principle, stated as follows:

(3) The phonological exponent of a Vocabulary item is inserted into a morpheme in the terminal string if the item matches all or a subset of the grammatical features specified in the terminal morpheme. Insertion does not take place if the Vocabulary item contains features not present in the morpheme. Where several Vocabulary items meet the conditions for insertion, the item matching the greatest number of features specified in the terminal morpheme must be chosen.

Crucial to the accounts of a "late insertion" is the assumption that Vocabulary items should be inserted into the morphemes of the terminal node only after the rules of the morphology had an opportunity to modify in various ways the feature complexes appearing in the morphemes. This assumption, which Halle and Marantz (1993) make in DM, is based on their cross-linguistic observation that the ordering, number, feature composition, and hierarchical positioning of terminal nodes may change in the derivation of a sentence.

1.2. Goals

In this dissertation I strive to delve into the problems arising from the so-called default case mechanism, centering on the issues raised above. Relevant to the issues are the following three sets of questions about default case that I raise at the outset of the dissertation:

1) Why is default case necessary in language, and what happens when a DP(NP) lacks such case?

2) When and how is default case assigned, and which component of grammar is responsible for default case assignment?

3) What is the nature of default case, and how is the notion of default case incorporated into the basic assumptions of the theory of feature checking and distributed morphology?

In broad outline, I will argue that the answers to these questions are as follows. First, a default case mechanism is needed to prevent a sentence from being ungrammatical simply

because no nominals in it are realized morphologically in case. Since default case is argued to be morphologically realized as a last resort, it helps to explain why in many languages nominals can be licensed without case, which runs against the claim of a classical case theory that DPs can only appear in a sentence if they find a case position. For this reason, Marantz (1992: 234) claims that abstract case theory be eliminated from the theory of syntax due to its inability to license a DP. In this sense, a DP should have default case for its morphological well-formedness, but not for its licensing requirement.

Second, I argue that default case is assigned as a last resort at PF when there is no plausible case assigner. The assignment of default case simultaneously leads to a morphological case realization. A particular language will determine a case morpheme among the traditional Nominative, Accusative, Genitive, etc., case. It varies across languages: accusative case in English but nominative case in Korean and Japanese.

Third, the default case mechanism is somewhat akin to DM, which endorses a late insertion of Vocabulary items. The phonological component, which is interpretive in DM (Marantz 1996), sees no case features on DPs after the computational system, and then spells them out as a default case morpheme to constitute a well-formed word in a particular language. Due to the fact that a DP with default case bears no case feature during the computation, the DP is assumed not to enter into any feature-checking relation in terms of case with any functional head like T in Chomsky (1995: §10). Since the PF interface is also an interpretive level in the feature-checking theory, it will spell out the DP without a case feature as a morphological default case.

By combining the two theories, I attempt to provide an account of default case across

languages in a more principled way. With the checking theory, on the one hand, I will argue that a DP without any case feature does not move either at PF or at LF for the sole purpose of checking its case feature. If it is seen to move, however, it moves to have other feature(s) checked off. With DM, on the other hand, I endorse a late insertion of Vocabulary items by claiming that a DP without case feature when it enters a numeration is supplied with a morphological case feature by default at PF to satisfy a well-formedness condition in a particular language. The default case system described in this dissertation will help us to provide a proper account of the constructions, which will be introduced in later sections.

1.3. Theoretical Framework

In this section, I will briefly outline the relevant parts of the framework that I am adopting for the analyses in subsequent chapters, essentially those of the Minimalist Program initiated by Chomsky (1993) and extended by his subsequent work (1994, 1995), and Distributed Morphology advocated by Halle and Marantz (1993), Marantz (1996), and Halle (1997). Various nontrivial technical details are glossed over where they are not directly relevant.

1.3.1. Feature Addition in Lexicon

The lexicon in the minimalist syntax includes functional categories like T and the light verb *v* as well as lexical categories such as V, N, and Adj. The lexical categories are fully inflected for features, and thus completely formed words, in the lexicon. The func-

tional categories of T and *v* in this system are the locus of tense and agreement features that may check off or eliminate the corresponding features on a Verb that moves up and adjoins to these categories. T and *v* also contain case and phi-features that they may check off against features of DPs (NPs) that raise to their specifier position. One salient difference between lexical and functional categories is that the latter never contain items from the lexicon; they are not the positions in which inflectional affixes are inserted. Rather, inflectional affixes are attached to items of the lexical categories in the lexicon. The functional nodes of T and *v* serve only to carry the morphological (inflectional) features necessary to check off the features on Ns and Vs.

The fact that lexical categories become fully inflected for features in the lexicon indicates that the addition of such features takes place there. This brings a fundamental difference between the minimalist syntax and other traditional syntactic theories such as DM (Halle and Marantz 1993) and GB (Chomsky 1981, 1986a), in which bare lexical items undergo various syntactic operations such as head movement and adjunction to pick up inflectional features like tense, case, and agreement. In this regard, the operation of feature addition in these theories takes place in the syntax. Chomsky (1995: 236-9) simply assumes that formal features (FFs) of a lexical item are chosen *optionally* as the item enters the numeration N. For the word *book*, for example, its lexical entry lists the categorial feature [N], but not case and phi-features. The former is intrinsic to the lexical entry, whereas the latter are *optionally* assigned to the item when it enters the numeration. If these optional features of a particular occurrence of *book* are added by the numeration N, there might be cases where it is chosen without any such features for the numeration. I

suggest that this is where default case results. That is, if the word is selected without any case feature for the computation C_{HL}, it will not and cannot participate in the operation of case feature checking due to the lack of such a feature. When it is submitted to the PF interface for interpretation, it is automatically supplied with a default case feature. I will adopt this for our discussion in this dissertation.

1.3.2. Agr-less Case Theory

In the Agr-based case theory, it has been shown that Agr-projections have played a crucial role in checking case features of DP on a par with T or V (Chomsky 1993, Lasnik 1993). In Chomsky (1995: §10), however, these projections have been discarded on conceptual grounds. He assumes that Agr lacks phi-features, and thus phi-features of a predicate (verb or adjective) are added to it optionally as it is selected from the lexicon for the numeration.[1] In other words, the predicate takes over the role of Agr in checking off phi-features. The existence of Agr is contingent upon the strength of its features. That is, Agr exists only when it has strong features, so that the position is phonetically indicated by the overt categories, such as V and T, that raise to it by adjunction.

In the Agr-less case theory, the nominal feature of SUBJ and that of OBJ in an active transitive clause are supposed to be checked off at a Spec of T and at a Spec of the higher head of the two-layered VP-shell, respectively. The pattern of their feature checking is delineated as in (4).

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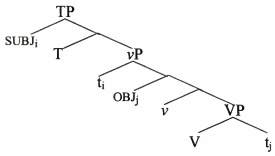
[1] In Chomsky (1995: 277) intrinsic features are distinguished from optional ones; the former include categorial features, while the latter are phi-features optionally assigned to a Verb as it enters the numeration N.

(4)



In Chomsky (1995: §10), *v*, which is called the light verb, stands for the higher head of the two layered VP-shell for a simple transitive verb. V raises overtly to the light verb *v*, forming the complex Vb = [$_v$ V *v*], to check off its case features.

1.3.3. Move F and Feature Checking

In the minimalist syntax, the operation Move is driven by morphological considerations: the requirement that some feature F should be checked. Chomsky (1995) replaces the operation Move α in the sense of Lasnik and Saito (1992) with the more principled operation Move F.[2] Given that a syntactic category, whether lexical or functional, consists of a bundle of features, the operation Move F provides a plausibility to move FF(LI) independently of a lexical item. In the Move F hypothesis, the raising of just the feature F, which Chomsky calls "the minimal operation," is considered to be more economical than that of the entire category (XP or X^0) containing F. Move F is implemented by the operation "attraction," the condition of which is illustrated in (5) (Chomsky 1995: 297).

(5) K *attracts* F if F is the closest feature that can enter into a checking relation with a sublabel of K.

If K attracts F, then α containing F merges with K, whereby K and α are in a checking

[2] Chomsky (1995: 264) differentiates Move α from Move F by saying that the operation of the former holds only for categories, since only categories were assumed to move.

configuration. If movement is overt, Move F raises the entire category α with a phonetic content. If movement is covert, on the other hand, Move F raises only the formal features of α.

Throughout the dissertation I adopt Chomsky's (1995) stipulation that elements introduced by Merge in its theta-position cannot enter into any checking relation at that position.[3] Note in derivation (4) that SUBJ inserted by Merge in the Spec of *v* is in a checking configuration with *v*. By the stipulation just stated, however, its features are not checked by *v*. Chomsky (1995: 352) attributes this inviability to the fact that SUBJ, at this position, does not head a nontrivial chain. This fact entails that only the head of a non-trivial chain CH = (α, t) can be in a checking relation with its functional head, where a checking relation is distinguished from a checking configuration in Chomsky (1995: 310).

(6) Feature F' of FF[F] is in a *checking configuration* with *f*; and F' is in a *checking relation* with *f* if, furthermore, F' and *f* match.

Clearly, SUBJ in (4) is in a checking configuration with *v* in the Spec of *v*. However, feature checking between them does not take place, since SUBJ remains in situ and it is not in a checking relation with *v* due to a feature mismatch between them, as illustrated in (6).

[3] In contrast, nonarguments such as *whether*, *if*, and *there* can enter into a checking relation by Merge, as assumed in Chomsky (1995: 312).

1.3.4. Economy Conditions

As the name stands, the minimalist program for linguistic theory aims at establishing the theory of grammar of human language by postulating only minimal assumptions and conditions that are necessary to account for various linguistic phenomena. In older versions of P&P Grammar, a single derivation resulting from various syntactic operations, represented by Move α, is evaluated in isolation; if it does not violate any principles, it is a grammatical derivation. In the minimalist syntax, on the other hand, various derivations constructed with the same lexical resources are compared and only the derivation satisfying the economy principles is selected as an optimal and grammatical derivation.

In the minimalist system, several kinds of economy condition are independently postulated. Representative among them is the Minimal Link Condition (MLC), which plays a crucial role in constraining the operation Move F. Chomsky (1995: 311) defines the condition as (7), where "close" is defined as (8) with τ the target of raising (p. 356).

(7) Minimal Link Condition
K attracts α only if there is no β, β closer to K than α, such that K attracts β.

(8) β is *closer to* K than α unless β is in the same minimal domain as (a) τ or (b) α.

With the elimination of Agr projections and the advent of the multiple-Spec theory (Bare Phrase Structure, Chomsky 1994), we can simplify the definition (8) to the statement that β is *closer* to the target K than α if β *c-commands* α.

Movement is also compared with Merge in terms of economy. While Merge is costless for principled reasons, movement is not. If the computation has a choice between Merge and movement, it prefers the former for economic considerations. If the movement operation is forced for a derivation to converge, it takes place as a last resort. The opera-

tion Move, however, must meet the Last Resort Condition on movement, which is stated in (9).

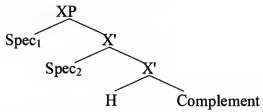
(9) Last Resort (Chomsky 1995: 280)
Move F raises F to target K only if F enters into a checking relation with a sub-label of K.

Movement is divided into overt and covert movement depending on the strength of formal features. Covert movement, however, is preferred by Procrastinate, which is another independently stipulated economy condition. Procrastinate states that covert movement is more economical than overt movement. It thus encourages derivations to hold off on movement until LF. A derivation, however, may violate Procrastinate in order to converge. Main verb movement in French constitutes a good example showing a violation of the principle in question. Main verbs in French, as opposed to their English counterparts, raise to Tense before Spell-Out to ensure convergence, violating Procrastinate. The asymmetry between the two languages in the pattern of movement is attributable to the difference of feature strength. It is standardly assumed that French tense features, unlike their English counterparts, are strong and visible at PF if not checked off. English tense features are weak and thus invisible at PF if not checked off. Since the English tense features are weak, English may wait to check off the tense features on main verbs until LF, observing Procrastinate. Within the minimalist program, therefore, differences in syntactic movement between languages are attributed to differences between the features of lexical items in the languages and specifically between the features of lexical items belonging to the functional categories such as T and *v*.

1.3.5. Bare Phrase Structure and Multiple Spec Configuration

One noticeable difference between the conventional X-bar theory and the minimalist assumptions about phrase structure (i.e., "bare" phrase structure) is that the latter, unlike the former, permit multiple Specs to be projected by a single head. Such ideas and empirical phenomena related to multiple Specs have been provided by Miyagawa (1993a,b), Koizumi 1994a, 1995), and Ura (1994a). Ura (1994a), in particular, claims that multiple Specs of a head H are possible only if H has multiple sets of FFs, and that the possibility of H to have multiple sets of FFs is determined by a lexical parameter in a particular language. Based on their ideas, Chomsky (1994: 41) provides a basic phrase structure of multiple Spec configuration as follows:

(10)



Chomsky (1995: §10) describes the multiple Spec configuration in terms of a violation of Procrastinate. He distinguishes terminologically between the two kinds of violation of Procrastinate: *forced* and *unforced violations*. The former do not constitute an economy violation because they are required for convergence; the latter constitute true economy violations because they are not relevant to convergence.

Now let us suppose that a head H, for example, has a strong feature that should be checked before Spell-Out. The strong feature will be checked, as usual, at PF for convergence, violating Procrastinate. This forced violation of Procrastinate will be tolerated, where it is the only way to make the derivation converge. It is standardly assumed that H

in all languages may tolerate a forced violation of Procrastinate as far as it is for convergence. What happens if H in a particular language also tolerates another violation of Procrastinate, which is unforced for convergence? If it does, it will project another (outer) Spec in its checking domain, giving rise to a double-Spec configuration. How many times H may tolerate an unforced violation of Procrastinate is parametrically determined.

1.3.6. Licensing

This subsection begins with a compelling question as to how nominal elements are licensed in sentences. In older versions of the P&P theory, argument DPs should observe two requirements to be licensed in a sentence. First, they should be projected into positions where a theta-role is assigned at D-Structure; they bear the semantic role with respect to predicates. Second, they should be placed in positions where (abstract) case is assigned at S-Structure; for this requirement they move to another position in search of case. This is the standard assumption used in older versions of P&P theories to account for the phenomenon of syntactic NP(DP)-movement.

The second requirement is governed by case theory. Nominal elements are licensed to appear in positions where case is assigned. In this regard, case theory is an account of the distribution of nominal elements, and it readily accounts for the ungrammaticality of the following sentences (Marantz 1992: 238).

(11) a. *It arrived the man.
b. *It was sold the porcupine.

Note that 'the man' in (11a) and 'the porcupine' in (11b) are assigned theta-roles by being projected into the post-verbal argument positions. Case theory on a par with Burzio's

generalization correctly describes the illegitimacy of the sentences above in terms of (abstract) case. According to case theory, the unaccusative verb *arrived* and the past participle *sold* are assumed to have no ability to assign case to the DPs; thus, the DPs fail to get case. Burzio's generalization also rules out the sentences in a similar fashion.[4] That is, the DPs are not assigned (accusative) case due to the subject positions with no theta-roles. Due to the lack of case in situ, they are taken to move to the subject positions to get case, virtually being licensed.

Despite their ability to account for structures like (11), Marantz seeks a more plausible motivation of the movement of those DPs. On standard assumptions, the structures in (11) would have underlying structures as in (12), with empty subject positions.

(12) a. e arrived the man.
b. e was sold the porcupine.

On standard assumptions, 'the man' and 'the porcupine' move to the subject positions where case is assigned, observing the Case Filter (Chomsky 1981). Do they move only for a case reason? Marantz (1992: 240) seeks another possibility to account for their movement to the positions in question. He comes up with the Extended Projection Principle or some sort of "subject condition," some stipulative condition in Chomsky (1981) that IPs require structural subjects in their Spec. There might be two ways for the sentences in (12) to have their structural subject: movement of the DPs or insertion of a dummy subject *it*. Assuming that the former comes for free while the latter is a last-resort option for satisfying the EPP, Marantz says that we can predict the ungrammaticality of (11) without

[4] I am referring to Burzio's generalization refined and formulated in Marantz (1992: 237) as follows:
Burzio's generalization: If a verb's subject position is non-thematic, the verb will not assign accusative structural case.

recourse to case theory at all. Accordingly, he suggests that DPs may be licensed to appear in the positions where they satisfy the EPP; that is, argument structure to syntax mappings plus the need for sentential subjects would account for the distribution of DPs. If this line of reasoning is on the right track, licensing might follow from projection without case theory.

Marantz's (1992) intention to eliminate (abstract) case theories as the means to license DPs comes from a wide range of cross-linguistic data, which show movement without any case reasons. In the examples in (13), Icelandic quirky case marking shows instances of DPs that get morphological case by virtue of being objects of certain verbs but are not necessarily licensed as objects by getting this case.

(13) a. María óskaði (Ólafi) alls góðs.
Mary-N wished Olaf-D everything-G good-G
b. Þess var óskað.
this-G was wished
c. henni var óskað Þess.
her-D was wished this-G (Marantz 1992: 241)

In (13a) two objects receive quirky case from the double object verb. Example (13a) can have two different passives as in (13b) and (13c). The fact that the two object DPs in (13b,c) still preserve the quirky case in the subject position in the passive indicates that they move to the subject position at least not for a case reason but for something else. As illustrated above, it is the EPP again that is at work here, which is referred to as a means to license overt DPs (Marantz 1992, Harley 1995, Schütze 1997).

In this dissertation, I basically follow the notion of licensing along the same line with Marantz (1992) and Schütze (1997), reserving the term *case* for the system of syntactic features underlying morphological markings traditionally described as Nominative, Accu-

sative, etc. Following Chomsky (1993, 1995), I assume that licensing is executed by Spec-Head feature checking between a DP and its appropriate head. In Chomsky (1995), the EPP is implemented by D-feature checking between a DP and its functional category T. In (12) the DPs are thus motivated to move to the subject position--to the Spec of T, to be more specific--to check the strong D-feature of T. D-feature checking also takes place between an object DP and its functional head *v*.

1.3.7. Case

As pointed out by Marantz (1992) and Harley (1995), Burzio's generalization, when considered in closer detail, seems somewhat redundant. The generalization is intended to account for the fact that underlying objects in unaccusative and passive constructions fail to be licensed in their base position because accusative case is unavailable to them. The object DPs finally move to subject position to get abstract nominative case. If the EPP is a theoretical necessity independent of abstract nominative case, however, Burzio's generalization is clearly redundant. For this reason, abstract case theory is eliminated from the theory of syntax in Marantz (1992), Harley (1995), and Schütze (1997).

The EPP corresponds more or less to abstract nominative case. The difference between abstract nominative case and the EPP, however, is that the EPP is a feature of a finite clause, which must be checked in the overt syntax--at least in English, rather than a requirement on DPs. That is, the EPP is enforced by the strong D-feature of the functional category T, but not by the requirement that the corresponding feature of DPs should be

checked against T. There is still a requirement on DPs that all DPs must bear morphological case to satisfy the Case Filter.

Discarding the notion of abstract case, I use the term *case* (m-case, or morphological case) to refer to "those features of DPs and other elements that can be spelled out morphologically as the traditional Nominative, Accusative, Genitive, etc. distinctions (Schütze 1997: 36)." It can be said that the notion of m-case feature specification better fits to the basic tenet of the minimalist theory that assumes morphological feature checking. While m-case features assigned to DPs in the lexicon are required to be checked in the syntax for convergence, those m-case features are not obligatorily assigned to DPs in that level. In other words, case assignment to DPs is optionally executed by functional heads such as T, *v*, and P. There are occasions where, for instance, T is unable to check nominative case in a finite clause due to the fact that a particular verb raises onto it by adjunction (inherent case). There are also occasions where case is realized morphologically after the syntax for convergence (default case).

In this dissertation, three different cases are discussed: inherent case, structural case, and default case. First of all, inherent case is a case assigned on a particular argument of a particular head in conjunction with theta-role assignment by that head (cf. Pesetsky 1982). For example, the experiencer argument of numerous verbs in Icelandic and psych-verbs in Korean and Japanese surfaces with dative case. The complement of prepositions in German receives a case determined partly or entirely by the particular preposition involved; for example, *nach* 'to(wards)' and *durch* 'through' always assign dative and accusative case respectively (cf. Schütze 1997: 42). It is a delicate issue whether or not

inherent cases should be checked in the syntax. I assume, following Chomsky (1993) and Ura (1996), that inherent cases, unlike structural ones, need not be checked syntactically.

Structural case is a case assigned to a DP in a structural position without reference to theta-role assignment. For instance, structural cases are assigned to the canonical subject and object. In the minimalist syntax (Chomsky 1995), T is responsible for assigning and checking nominative case, and *v* and P accusative case. These functional categories, when they enter the numeration for computation, are assumed to have an intrinsic ability to check their appropriate case feature. Once they have the ability, there must be case features available on the part of DPs so that a one-to-one mapping relation can be established between them. When the case features match on the two parts, feature checking should take place in the usual manner for convergence.

Finally, default case is a case used by the morphological component to spell out a DP that checks neither structural nor inherent case in the syntax. Default case is a last resort option to satisfy the Case Filter. By definition, a default case feature cannot be assigned in the lexicon, and thus it cannot have any effect in terms of feature checking in the syntax, since it does not exist there (Schütze 1997). It is expected, therefore, that DPs without case features in the lexicon will exhibit different linguistic aspects from those with case features in various syntactic operations, which will be illustrated throughout the dissertation.

The realization of the cases discussed above obeys a disjunctive hierarchy that is typical of morphological spell-out. The more specific, more particular case requirements win out over the more general, less particular case requirements (cf. Marantz 1992). The dis-

junctive hierarchy is in the order of inherent case, structural case, and default case. Under my proposal, inherent case is treated as most specific and particular; thus, it takes precedence over the other two cases. Quirky case in Icelandic is a good example. When a DP with a quirky case moves from a position governed by a quirky case verb to a position of nominative or ECM accusative case, it preserves its original quirky case. Two relevant assumptions are in order with respect to this morphological case realization. First, when a DP with quirky case moves to a position with nominative case, for example, it is assigned nominative case as well in the position. Now the DP has two cases: inherent case and structural case. By the disjunctive hierarchy, however, inherent case takes precedence over structural case, and it is virtually realized on the surface. Second, when the DP with quirky case enters the numeration for computation, the functional category T responsible for nominative case in usual circumstances lacks an ability to check a nominative case feature in this particular instance. It follows that no feature checking between the DP and T results. I opt for the second assumption for our discussion throughout the dissertation. Structural case is assigned when no quirky case is assigned. Since structural case is assigned by functional categories such as T, *v*, and P, case features of DPs are checked against these functional categories. Given that inherent case features need not be checked, structural case features play a crucial role in the syntactic operation called *checking*. Finally, there is a general default case in the language when no other case realization principle is applicable.

CHAPTER 2
DEFAULT CASE AND THE CASE FILTER

2.1. Introduction

In older versions of the P&P theory, the Case Filter was interpreted as a requirement that all overt DPs must be assigned (abstract) case (Chomsky 1981, Vergnaud 1982). Now the Case Filter is divided into two parts in the minimalist program. First, all overt DPs must be assigned morphological case features in the lexicon before they enter into the computation. The second part of the Case Filter is that these morphological case features on the DPs should be checked during the computation in the syntax. Accordingly, I propose the reworking of the Case Filter within the minimalist theory as follows (cf. Harley 1995, Marantz 1995):

(1) Case Filter
   a. All DPs must bear morphological case.
   b. All morphological case features assigned in the lexicon must be checked.

In the minimalist theory, DPs obtain morphological features in the lexicon, which are needed for the computation in the syntax. Accordingly, the DPs, under normal circumstances, get case features before they enter into a derivation, satisfying condition (1a). Now case features on the DPs must be checked to satisfy condition (1b). In contrast to the Case Filter defined in P&P theories, the Case Filter stated in (1) additionally requires that case features of DPs should be checked in the syntax.

Although DPs are fully specified with their syntactic case features in normal circumstances, as illustrated above, they might lack such features completely, which is remini-

scent of the statement that case features are assumed to be optionally added to DPs upon insertion into a derivation (Chomsky 1995). What happens if a DP lacks a case feature in the lexicon? In this case, the DP will be submitted to the PF or LF interface for interpretation without any case feature. Condition (1a) is at work here, ruling out the derivation in violation of the Case Filter. However, the universal grammar has a device to salvage this illegitimate derivation, which might be called a "default case realization." By a default case strategy, the DP gets a case feature by default later at the stage of output by a "late insertion" process, which this dissertation endorses along the same line with Halle and Marantz (1993), Marantz (1996), and Halle (1997). Condition (1a), therefore, should be interpreted as a requirement that all DPs must bear case at the output of a derivation.

The universal availability of a default case realization will never make a sentence ungrammatical because no case features are assigned to DPs. Consequently, it is not the absence of case features but the failure of checking existing case features on DPs that makes a sentence ungrammatical. It is cross-linguistically observed that languages often employ a default case strategy to deal with syntactically caseless DPs. In this chapter, I will lay out the background for the use of default case in subsequent chapters and discuss its grammatical implications for the syntactic operation called feature checking in the minimalist program (Chomsky 1995: §10).

2.2. Case Assignment

2.2.1. INFL as Case Assigner

It has been standardly assumed that structural case is assigned by its case assigner; nominative case in English, for example, is taken to be assigned by INFL, an amalgamated form of tense and agreement (Chomsky 1981). Consider the following examples.

(2) a. I read a book.
b. He reads a book.

The examples above show an agreement between a subject and a verb in finite clauses. Languages differ in the manner in which they implement subject-verb agreement. In English, for example, the so-called phi-features of the subject are copied onto a special Agr node that is a sister of the Tense node. A special rule of morphology called Fusion combines the two sets of features of Tense and Agr into a single morpheme such as /z/ in (2b).[1] Whenever this agreement relation between a subject and a verb holds, the subject takes nominative case. Conversely, when this subject-verb relation breaks, the verb might fail to inflect for features of the subject and the subject might fail to exhibit the usual case marking. This is where we can expect default case to appear as a last resort in order to satisfy the Case Filter.

Departing from the traditional case theory in terms of Tense and Agr, Chomsky (1995: §10) suggests that Agr-projections should be discarded on conceptual grounds. He assumes that Agr lacks phi-features, and thus the phi-features of a predicate (verb or

[1] See Halle (1997) for a more detailed discussion.

adjective) are added to it optionally as it is selected from the lexicon for the numeration.[2] In other words, the predicate takes over the role of Agr in checking off the phi-features of a DP. The elimination of Agr-projections virtually makes Tense solely responsible for the assignment and checking of nominative case (Chomsky 1995).

Case assignment to argument DPs in the minimalist theory takes place in the lexicon simultaneously as they obtain case features for the numeration. The process of the numeration includes providing T with the ability to check case features of DPs. Conversely, T enters into the numeration without any intrinsic ability to check case features if the DPs have no such features. It is assumed in this dissertation that T is optionally provided with the ability to check features. This optionality helps to account for parametric differences among languages and a variety of feature checking in inherent case and default case. Along these lines, I will explore the aspects of Agr and T as case assigners in some other languages in order to show a parametric difference in terms of the feature checking ability of T.

2.2.2. Agr in Korean

Chomsky's (1993) minimalist framework posits two Agr phrases, AgrsP and AgroP, in the phrase structure of a clause. This was motivated by the fact that English shows overt agreement morphology and the minimalist theory severely depends on inflectional morphology. However, it has been a controversial issue whether Agr exists in languages like Korean and Japanese, since they do not exhibit overt (visible) agreement morpho-

[2] In Chomsky (1995: 277) intrinsic features are distinguished from optional ones; the former include categorial features, while the latter include phi-features optionally assigned to a verb as it enters the numeration N.

logy. In this subsection, I will introduce the views of two different groups of researchers arguing for and against the existence of Agr in the two languages in question. And I will argue that Korean (and Japanese) lack Agr in the sense of phi-features (gender, person, and number); this automatically leads us to abandon the Agr-based case theory and adopt the Agr-less case theory for discussion of case properties in the two languages.

2.2.2.1. Number agreement

Researchers arguing for the existence of Agr in Korean base their arguments on two grammatical aspects such as number agreement and honorification established between a subject and a predicate. Based on this, they claim that Korean has Agr and it is responsible for licensing nominative case (H. Choe 1988, Han 1987, Ahn 1990, H. Lee 1997).

Korean employs the uniform plural morpheme *-tul* for nouns. However, this morpheme, unlike English plural morphemes, is not necessarily used for nouns in plural.

(3) a. Three persons came.
b.* Three person came.

(4) a. se salam-*tul*-i o-ass-ta.
three person-PL-N come-PAST-DEC
'Three persons came'

b. se salam-i o-ass-ta.

We note that the plural morpheme is strictly enforced in English, while it is optional in Korean. The plural morpheme extends its optionality to the verb. This fact is shown in the following examples, drawn from H. Lee (1997).

(5) a. ai-*tul*-i taly-e-*tul* o-ass-ta.
child-PL-N run-VA-PL come-PAST-DEC
'Children came running'

b. ai-*tul*-i taly-e o-ass-ta.

c.* ai-ka taly-e-*tul* o-ass-ta.
'A child came running'

(5b) clearly shows that the plural morpheme is optionally realized on the verb. In (5c), on the other hand, the subject should be pluralized once the verb is attached by the morpheme.

Note that the predicate in (5) is not a simple verb, but rather a compound verb consisting of two verbs *tali* 'run' and *o* 'come' mediated by the verbal affix *-e*. Note also that the plural morpheme *tul* is never realized on a simple verb. Let us consider the following examples.

(6) a. ai-*tul*-i o-ass-ta.
child-PL-N come-PAST-DEC
'Children came'

b. *ai-*tul*-i o-*tul*-ass-ta.
PL PL

c. *ai-ka o-*tul*-ass-ta.
N PL
'A child came'

(7) a. ai-*tul*-i ilccik-*tul* o-ass-ta.
PL-N early-PL
'Children came early'

b. ai-*tul*-i ilccik o-ass-ta.
PL-N

c. *ai-ka ilccik-*tul* o-ass-ta.
N early-PL
'A child came early'

The examples in (6) show that *tul* is not allowed to attach to a simple verb stem whether the subject is in the singular or in the plural. Rather, it is shown to optionally attach to the

adverb modifying the verb as in (7).[3]

The predicate *taly-e o* in (5) is treated as a compound verb in Korean morphology, which consists of *taly* 'run' and *o* 'come', mediated by the verbal affix *-e*. In this configuration, it is always the second verb *o* 'come' that is considered as a main predicate due to the fact that it carries tense and aspect. The first verb *taly* 'run', on the other hand, plays a role of modifying the second. In this regard, it is the same as an adverb in its role.[4] This is evidenced by the following paradigm.

(8) a. ai-*tul*-un etteke-*tul* o-ass-ni?
child-PL-TOP how-PL come-PAST-Q
'How did children come?'

b. taly-e-*tul* o-ass-eyo.
run-VA-PL come-PAST-HON
'(They) came running'

c. cal-*tul* o-ass-eyo.
well-PL
'(They) came well'

In (8a) we note that the wh-adjunct *etteke*, which is treated as an adverb, is also attached by the plural morpheme. (8a) can be answered by either (8b) or (8c). From this, we can claim that the first verb *taly-e* in (8b) patterns with the adverb *cal* 'well' with regard to the affixation of the plural morpheme.

Based on the facts illustrated above, I claim that the number agreement phenomenon shown above is not a true English-type agreement, which is a collection of gender, person, and number. This claim is based on the following considerations. First, the establish-

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[3] Note that the plural morpheme *tul* is combined with other categories like an adjective, a nominalizer, and a complementizer within a clause boundary (see H. Choe 1988).

[4] Choi (1971) and Sohn (1976), calling the verbal affix *-e* an adverbal marker, treat the first verb as an adverb, since it patterns with an ordinary adverb in its function.

ment of number agreement between two categories is not obligatory. Thus, the absence of the plural morpheme does not cause ungrammaticality, except on the subject in (6c) and (7c). Second, the plural morpheme cannot appear on a main verb which is predicated of a subject. It follows that, in fact, there is no establishment of number agreement between a subject and a (main) verb.

2.2.2.2. Honorific marker *si*

Researchers who argue for the existence of Agr in Korean (and Japanese as well) seek another piece of evidence from honorification. They claim that the subject-honorific morpheme *-si* is a manifestation of Agr in INFL. As is well known, Korean and Japanese are languages which have a highly developed honorific system in language and culture. In these languages, one of the typical mechanisms used to express honorification is the incorporation of an honorific morpheme into a sentence. When a human subject is old or respected, the honorific morpheme *-si* is optionally attached to a verb stem.[5]

(9) a. apeci-kkese o-*si*-n-ta.
father-N(HON) come-HON-PRES-DEC
'Father is coming'

b. *Chelsu-ka apeci-lul po-*si*-ess-ta.
N father-A see-HON-PAST-DEC
'Chelsu saw (his) father'

Apeci 'father' is the subject in (9a), but the object in (9b). The ungrammaticality of (9b) indicates that honorification is established exclusively between the subject and the verb.

[5] Some verbs such as *ca* 'sleep', *mek* 'eat', *iss* 'be', and *cuk* 'die' have their own suppletive honorific forms such as *cumusi*, *capsusi*, *kyesi*, and *tolakasi*, respectively. These suppletive forms should always contain the honorific marker *-si*.

Interestingly, however, the honorific morpheme can be employed for an element within a topic, a focus, or a subject, as illustrated in E. Cho (1988), Y. Kim (1990), and E. Lee (1992).

(10) a. ce halapeci-euy kenkang-un maywu cohu-*si*-ta.
that grandfather-G health-TOP very be-good-HON-DEC
'That grandfather's health is very good'

b. kyocang sensayingnim-uloputhe cisisahang-i issu-*si*-keyss-upnita.
principal teacher-from instruction-N be-HON-FUT-DEC
'From the principal, there will be instructions'

c. apeci-euy pal-i maywu khu-*si*-ta.
father-G feet-N very be-big-HON-DEC
'Father's feet are very big'

With respect to the structures above, E. Lee (1992) makes a generalization that the honorific morpheme is employed for an element that shows up in a higher position in phrase structure.

E. Lee (1992) asserts that the Korean honorific agreement between a subject and a verb differs from the English-type agreement. She points out crucial differences between the honorific features and the gender/person/number features as follows. First, the latter are inherent and from the lexicon, while the former are not. Second, the latter are obligatory, while the former are optional. Third, the latter determine the grammaticality of a sentence, whereas the former seem rather to determine the felicity of a sentence. It follows that a sentence without the honorific morpheme is fully grammatical but less felicitous than one with it.

E. Cho (1988) shows how honorification differs from the English-type of subject-verb agreement by presenting some other examples in which a respectable subject does not induce honorification.

(11) a. na-euy hoysa sacang-un kaycasik-i-(*#si*)-ta.[6]
I-G company boss-TOP son of a bitch-be-(HON)-DEC
'My boss is a son of a bitch'

b. apeci-ka pelsse cip-e o-(*#si*)-ess-eyo.
father-N already home-at come-(HON)-PAST-DEC
'Father has already come home'

(11a) describes a situation where one is complaining about one's boss; in this case the subject, even though (socially) respectable, does not deserve respect from the speaker's perspective. (11b) exhibits a somewhat more complicated situation. In (11b), a son is talking about his father to his grandfather. In such a situation, it is a rule in discourse to humble his father, since his father is younger than his grandfather. From this, I claim that Korean honorification is governed by discourse or pragmatics. Honorification is simply expressed in relation to an entity, whether it is a subject, a focus, or a possessor, etc. Along these lines, I argue that honorification is not a grammatical function at all.

In this dissertation, I claim that honorification is a matter of "relatedness" in discourse or pragmatics. When one describes something which is related to a person who is respectable from one's perspective, it is honored by attaching the honorific morpheme *-si* to its predicate. This reasoning naturally leads us to the conclusion that Korean lacks Agr carrying (syntactic) phi-features in the sense of Agr in English.

[6] Note that # indicates infelicitousness, not ungrammaticality.

Fukui (1986) also comes to the same conclusion about Japanese Agr. He entertains the idea that Japanese lacks a functional category I, which includes T and Agr. As mentioned above, Japanese also exhibits a subject-verb agreement phenomenon in terms of honorification. However, he asserts that Japanese lacks subject-verb agreement in the sense of English Agr, assuming that subject-honorification is different in nature from the regular agreement phenomena in that it does not refer to phi-features.

2.2.2.3. Agr is not a syntactic category

INFL in English is readily postulated in phrase structure, separated from V as illustrated in (12). When Tense/Agr morphemes are stranded for some reason, the auxiliary 'do' is inserted to pick up these stranded morphemes (Do-Support).

(12) a. Did John play there?
b. John does not play there.

It is shown that the amalgamated forms of Tense and Agr, /d/ in (12a) and /z/ in (12b), are realized on the auxiliary 'do', not on the main verb. This clearly shows that INFL in English constitutes an independent functional category separated from a main verb.

It is claimed that there exists INFL in Korean as well. Those who argue for the existence of Agr naturally claim that Korean also has INFL as an independent functional category separated from V (Han 1987, H. Choe 1988, M. Kang 1988). They base their arguments for INFL on the behavior of *ha*, the corresponding auxiliary to the English 'do'. Their claim might be supported by the following examples, in which the honorific morpheme *-si* is realized on *ha* 'do', which is separated from the main verb.

(13) a. apeci-kkese samusil-e ka-ci ani ha-*si*-ess-ta.
father-N(HON) office-to go-NML NEG do-HON-PAST-DEC
'Father did not go to (his) office'

b. sensayingnim-kkese ku chayk-ul ilk-ki-nun ha-*si*-ess-ta.
teacher-N(HON) that book-A read-NML-TOP do-HON-PAST-DEC
'Read the book, teacher did...'

The honorific morpheme *-si* in (13) is shown to be separated from the main verb, as opposed to the examples in (9) and (10), where it is attached to the main verb.

Y. Kim (1990) argues against the claim that Agr in Korean constitutes an independent INFL category. She (p. 146) points out that the honorific morpheme *-si* may occur on either side of the alleged boundary between V and INFL in the constructions below involving *ha*. To be more specific, *-si* may occur either with the main verb or with *ha*, or with both.

(14) a. sensayingnim-i hakkyo-e o-*si*-ci ani ha-*si*-ess-ta.
teacher-N school-to come-HON-NML NEG do-HON-PAST-DEC
'(My) teacher did not come to school'

b. sensayingnim-i hakkyo-e o-*si*-ki-nun ha-*si*-ess-ta.
teacher-N school-to come-HON-NML-TOP do-HON-PAST-DEC
'Come to school, teacher did...'

The distribution of *-si* on both sides makes untenable the argument that Agr is an independent category. Y. Kim asserts that if the honorific morpheme *-si* is taken to be Agr, it should occur only with the auxiliary *ha*, which is claimed to be the carrier of pure INFL detached from V. M. Kang (1988: 83) acknowledges this problem and proposes 'morphological doubling', which indicates that "the matrix Agr can be interpreted to be a morphological feature of the matrix verb and that this feature is copied onto the verb within the lower VP, without creating an Agr or INFL node." But this proposal immediately proves

to be untenable by the following examples that Y. Kim (1990: 147) presents, in which the honorific morpheme appears on V, but not on *ha*.

(15) a. halmeni-kkese imi tolaka*si*-ess-ki-nun ha-(**si*)-ciman ...
grandmother-N(HON) already die(HON)-PAST-NML-TOP do-(*HON)-although
'Although it is the case that Grandmother already died ...'

b. halapeci-kkese yeki kye*si*-ci ani ha-(?*si*)-ta.
grandfather-N(HON) here be(HON)-NML NEG do-(?HON)-DEC
'Grandfather is not here'

Note that the two main verbs in (15) are suppletive honorific forms of the regular verbs, *cuk* 'die' and *iss* 'be,' respectively. Interestingly, when these suppletive honorific forms are used, *ha* resists being attached by the honorific morpheme *-si*.[7]

2.2.3. Tense in Korean

In the preceding sections I have argued that there exists no Agr in Korean and accordingly Agr does not constitute an independent syntactic category within INFL. This argument automatically leads us to conclude that Agr is not a nominative case assigner in Korean. As far as case assignment is concerned, T is subject to the same destiny as Agr, as will be illustrated shortly. The fact that T is not able to assign case does not necessarily exclude the possibility that there exists INFL as a syntactic category in Korean. I claim that T exists as a functional category devoid of a case-assigning capacity. Y. Kim (1990) justifies the existence of T as a content of INFL by observing that tense morphemes are

[7] In my own grammatical judgement, example (15a) is not completely ungrammatical. What concerns us here is the fact that the sentences in (15) sound better without *-si* on the auxiliary *ha*.

interpreted as having scope over the whole clause even though they are always realized as verbal suffixes.[8]

Facing somewhat intriguing examples involving nominative case in a nonfinite embedded clause, some researchers came up with the hypothesis that T, whether finite or nonfinite, can assign nominative case. They include Yim (1985) and S. Kang (1989), whose guiding idea is that not only finite clauses but also nonfinite ones have the [+Tense] feature. This was a revised notion of Chomsky's [+Tense] feature, originally put forth by Stowell (1981). The distinction between finiteness and nonfiniteness was determined by the [±Past] feature; the former is [+Past] and the latter is [-Past]. In their system, nominative case was assumed to be assigned by Tense whether it is [+Past] or [-Past]. A parametric variation arises between Korean and English with respect to nominative case assignment; the [+Tense] feature alone can assign nominative case in Korean, whereas the [+Tense] plus [+Past] features may do so in English (S. Kang 1989: 64). Their analyses, however, face a serious problem in ECM constructions, in which the embedded subject is accusative-marked even with an alleged case assigner, that is, [+Tense], which will be discussed in detail in chapter 3.

Empirical evidence currently available to us is not enough to make us believe that INFL in Korean, which is claimed to contain only Tense by Y. Kim (1990) and E. Lee (1992), is responsible for nominative case in Korean. Let us provisionally conclude that Koran nominative case is assigned by "default." To reinforce this provisional conclusion,

[8] There are two views with respect to the realization of tense morphemes onto the verb stem. One is the "affixation" hypothesis, in which tense morphemes are attached to verb stems without any head movement (J-H. Yoon 1994, M. Park 1994). The other is the "verb-raising" hypothesis, in which V raises onto T by head movement (J-M. Yoon 1990, S. Kang 1997). In this dissertation, I will take the second position and illustrate the aspects of verb raising in detail in chapter 3.

in the following section I will present a variety of examples which fail to show nominative case assignment in revealing ways.

2.3. Subjects of Complement Clauses

2.3.1. Licensing and Case

One of the licensing conditions of argument DPs in older versions of the P&P theory was that they must be assigned (abstract) case. Conversely, argument DPs cannot occur in positions where no case is assigned. This licensing condition correctly accounts for the distribution of the subject DP of the complement clause, as exemplified in (16).

(16) a. John believes [he is honest].
b. John believes [him to be honest].
c. John tries [PRO to be honest].

It is shown in (16a) and (16b) that overt subject DPs appear in the subject position of the complement clause. The availability of case enables them to appear in the position; *he* in (16a) gets case from INFL(+Tense) within the complement clause, whereas *him* in (16b) gets case from the matrix verb, which is an external source for case. In (16c), however, the complement clause cannot have any overt subject DP; no case is available either within the clause due to being nonfinite or from any external head.[9] A sharp contrast between (16b) and (16c) leads us to say that nonfinite clauses cannot have overt subject DPs unless there is an external case assigner.

A cross-linguistic examination reveals, however, that in some languages nonfinite clauses can have an overt subject DP even when they have no external case assigner, and

[9] In Chomsky and Lasnik (1991), PRO is assumed to be assigned null case within a nonfinite clause.

that finite clauses do not license case on an overt subject DP. In what follows, I divide complement clauses into finite and nonfinite ones and explore how their overt subjects are licensed by getting case.

2.3.2. Subjects of Nonfinite Clauses

2.3.2.1. English

It is standardly assumed that nonfinite clauses cannot license overt subject DPs due to the fact that they cannot provide them with case. It is thus highly expected that nonfinite clauses with overt subject DPs will occur in only a small range of syntactic contexts--exactly those in which some verb or preposition external to the infinitival clause can govern across a clause boundary. This is the explanation of licensing overt DPs in terms of case. Within this account, the following examples (Schütze 1997: 22) might be ruled out due to the lack of case on DPs.

(17) a. *Raoul to leave would be rude.
b. *It is important everyone to stay calm.
c. *My desire Christine to succeed led me astray.
d. *Christine endeavored Raoul to be informed.
e. *Us to be on time, we'll have to take a shortcut.

On standard assumptions, the sentences in (17) are ruled out due to the fact that the subjects of infinitival clauses are caseless, violating the Case Filter. The insertion of *for* is required to make the infinitival clauses have overt subjects.

Schütze (1997: 23-4) gives the following two familiar paradigms to show the different behavior of overt subjects in nonfinite complement clauses in adult English. He divides the complement infinitivals with overt subjects below into two classes that can be charac-

terized in terms of whether or not the appearance and position of the embedded subject seems to depend directly on the governing verb.

(18) a. Jane believes Bill to know the answer.
b. Bill is believed to know the answer.
c. *(For) Bill to know the answer is believed.
d. *It is believed (for) Bill to know the answer.
e. *Jane believes very firmly (for) Bill to know the answer.
f. *What Jane believes is (for) Bill to know the answer.
g. *It's (for) Bill to know the answer that Jane believes.

(19) a. Jane desires (for) Bill to know the answer.
b. *Bill is desired (for) to know the answer.
c. For Bill to know the answer is desired.
d. It is desired for Bill to know the answer.
e. Jane desires very much for Bill to know the answer.
f. What Jane desires is for Bill to know the answer.
g. ??It's for Bill to know the answer that Jane desires.

A sharp contrast between the two paradigms above reveals that the paradigm of (18) displays such a direct dependence, whereas that of (19) does not. Schütze takes these contrasts to show that *Bill* in (18) is licensed by the matrix verb, whereas *Bill* is licensed internal to the infinitival clause.[10] The different licensing pattern shown in (18) and (19) yields a different pattern of case marking on the embedded subject DP; that is, the embedded subject of (18a) gets case from its governing verb *believe*, while that of (19a) gets case from the preposition *for*.

[10] In Schütze (1997), *Bill* is assumed to have a licensing feature, which is distinct from D-feature, and this feature should be checked. Schütze (p.c.) suggests that both the licensing and case feature of *Bill* are checked by the matrix verb *believe* in (18), whereas the licensing feature of *Bill* is checked by the embedded nonfinite T and the case feature by *for* in (18). However, it is still not clear why the same nonfinite T in (18) lacks an ability to check the licensing feature.

2.3.2.2. Korean

In contrast to English, Korean and some other languages provide interesting examples in which infinitival clauses have an overt subject DP without any external case assigner. Consider the following example.

(20) [puca-*ka* chendang-e ka-(*ass)-ki-ka] elyep-ta.
the rich-N heaven-to go-(*PAST)-NML-N hard-DEC
'It is hard for the rich to go to the heaven'

In (20) the embedded clause is nonfinite due to the fact that the past morpheme is not allowed and that it is nominalized by the nominalizer *ki*. Under Schütze's (1997) proposals, the infinitival subject *puca* 'the rich' is licensed to appear internal to the infinitival clause; the matrix predicate is not in the position to govern it. The licensing aspects of overt DPs in infinitival clauses are further found in infinitival control constructions, as exemplified in (21).

(21) a. Inho$_i$-ka [$_{CP}$[$_{TP}$ PRO/caki$_i$-*ka* ka-(*ess)]-ko] sipheha-n-ta.
N self-N go-(*PAST)-COMP want-PRES-DEC
'Inho wants PRO/self to go'

b. Inho$_i$-ka [$_{CP}$[$_{TP}$ PRO/caki$_i$-*ka* kunye-lul manna-(*ess)]-lyeko] ayssu-ess-ta.
N self-N she-A meet-(*PAST)-COMP try-PAST-DEC
'Inho tried PRO/self to meet her'

One noticeable difference between English and Korean is that in the latter a lexical DP may appear in the subject position of infinitival control constructions. The fact that the infinitival complement clauses do not allow for the existence of the past morpheme indicates that Tense may never occur within the complement clause. On the face of these facts, the infinitival subject, here again, is licensed internal to the infinitival clause; the

issue of how nominative case is assigned to the infinitival subject will be taken up shortly.

2.3.3. Subjects of Finite Clauses

In contrast to nonfinite clauses discussed above, finite ones are, in general, predicted to provide their overt subject DPs with case. This prediction is readily borne out in the following paradigm:

(22) a. She was beautiful.
b. Suni-ka/*lul yeppu-ess-ta. (Korean)
N/*A pretty-PAST-DEC
'Suni was pretty'

It is evident in (22a) that *she* receives nominative case from T. In (22b), it appears that the subject DP *Suni* likewise receives nominative case from T. When (22b) is embedded into another sentence, however, *Suni* shows case alternation between nominative and accusative, as exemplified in (23).

(23) a. na-nun [Suni-*ka* yeppu-ess-tako] mit-nun-ta.
I-TOP N pretty-PAST-COMP believe-PRES-DEC
'I believe that Suni was pretty'

b. na-nun [Suni-*lul* yeppu-ess-tako] mit-nun-ta.
A
'same meaning as (23a)'

(23b) has been treated as an ECM construction in the literature (J. Lee 1992, J-M. Yoon 1991). This is due to the fact that the embedded subject *Suni* is shown to get case from the matrix verb *mit* 'believe' across the clause boundary. Note, however, that the embedded clause in (23b) is finite due to the presence of the past morpheme and the overt complementizer. If we assume that Korean nominative case is likewise assigned by T as

in English, accusative case marking on *Suni* is puzzling. The case alternation shown above will require a special treatment of nominative case assignment in Korean, which will be discussed shortly.

2.3.4. Default Case as a Last Resort

In the preceding sections, I have illustrated how overt DPs manage to be licensed in the subject position of finite and nonfinite complement clauses. Given that structural case is assigned by its case assigner, case marking on overt DPs in nonfinite clauses is puzzling.

In this dissertation, I argue that the overt subject DPs of nonfinite and finite clauses illustrated above are licensed by checking their D-feature against T within them in the sense of Chomsky (1995), and their case marking is performed by a 'default case strategy' to be well-formed on the surface.[11] As far as case alternation in the finite clause (23) is concerned, I claim that the numeration can select a DP with an accusative case feature or without any case feature. If the former is selected for the numeration, it undergoes case feature checking during its derivation in the usual manner; if the latter is selected for the numeration, however, it does not. Default case should be assigned morphologically to satisfy the Case Filter illustrated in (1), and it varies among languages. Default case is assigned, as a last resort, to a DP that lacks morphological case; thus, default case assignment is at work when there is no other case available on the DP. As a mechanism to default case assignment, I adopt Schütze's (1997: 50) *feature-filling* approach, in which "a

[11] In the system of Schütze (1997), licensing feature is distinguished from D-feature in Chomsky (1995) for independent reasons; thus, the overt subject DPs of nonfinite clauses are required for checking both of them.

representation that comes out of the syntax without a case feature is 'filled up' by a *feature-filling* rule prior to any other morphological operations."[12] By a feature-filling operation, DPs that are unspecified for case features during the computation become fully specified for those features. Then, the morphological component, which is interpretive in the minimalist syntax, spells out the fully-specified DPs at the stage of output. In what follows, I will present some Korean examples to show how default case assignment takes place in environments where no case is available.

2.3.4.1. Focus and nominative case

Korean has the so-called "conversion" phenomenon, in which a topic marker, a post-position, or other cases are seemingly converted to nominative case. As a starting point, consider the following examples of topic constructions, drawn from E. Lee (1992).

(24) a. mulihak-*un* chwicik-i elyep-ta.
physics-TOP getting a job-N difficult-DEC
'As for physics, it is difficult to get a job (in that field)'

b. sikey-*nun* Omega-ka coh-ta.
watch-TOP N good-DEC
'As for watch, Omega is good'

In these examples, all the topics are signaled by the topic markers *un* and *nun*. Without these markers, the sentences become bad, exemplified as follows:

(25) a. ?*mulihak chwicik-i elyep-ta.
physics getting a job-N difficult-DEC

b. ?*sikey Omega-ka coh-ta.
watch N good-DEC

[12] See Schütze (1997: 50) for an alternative approach called *default spell-out*.

The ungrammaticality of (25) is due to the fact that the first DPs are caseless without a case marker, violating the Case Filter. They have to get case to satisfy the Case Filter in one way or another. However, the first DPs do not have any source for providing them with case. It is in this situation that default case assignment takes place. They are assigned default nominative case as a last resort, which brings the illegitimate sentences back to normal.

(26) a. mulihak-*i* chwicik-i elyep-ta.
N N

b. sikey-*ka* Omega-ka coh-ta.
N N

No other cases are accessible to the DPs in question, shown as follows:

(27) a. *mulihak-*ul/euy* chwicik-i elyep-ta.
A/G N

b. *sikey-*lul/euy* Omega-ka coh-ta.
A/G N

From the fact that no other cases can be accessible to those DPs in a situation where they can not get case from any other source, we can suggest that nominative case is assigned by default to a lexical DP that is not case-marked; thus, the function of nominative case is to prevent the lexical DP from violating the Case Filter (Y. Kang 1986, Y. Kim 1990, E. Lee 1992).

2.3.4.2. Adjuncts

We can find another piece of evidence for default nominative case assignment from adjunct structures. In Korean, adjuncts, temporal or locative ones in particular, can be assigned nominative case.

(28) a. yelum-ey maykcwu-ka masiss-ta.
summer-in beer-N tasty-DEC
'In summer, beer is tasty'

b. hankuk-ey salamtul-i yelsimhi il-ul ha-n-ta.
Korea-in people-N hard work-A do-PRES-DEC
'In Korea, people work hard' (E. Lee 1992)

Note that the first DPs are assigned case by the postposition *ey* 'in'. Now the case assigned by the postposition can be easily converted to nominative case as in (29), and no other case is possible as in (30).

(29) a. yelum-*i* maykcwu-ka masiss-ta.
N N

b. hankuk-*i* salamtul-i yelsimhi il-ul ha-n-ta.
N N A

(30) a. *yelum-*ul/euy* maykcwu-ka masiss-ta.
A/G N

b. *hankuk-*ul/euy* salamtul-i yelsimhi il-ul ha-n-ta.
A/G N A

E. Lee (1992) suggests that the adjuncts in (28) are base-generated in focus positions like the topics in (24). Then, the adjuncts are not theta-marked by the predicates, since they are base-generated out of IP. Thus, the DPs without a postposition in (29) are not inherently case-marked, given that inherent case is assigned in conjunction with theta-role assignment, as suggested by Chomsky (1981, 1986a). Observing that the DPs without

theta-marking are alternatively assigned nominative case in (29), we can arguably say that the nominative case is not inherent but rather default.

2.4. Default Case in Other Languages

In this section, I present more cross-linguistic data virtually showing the necessity of default case. As mentioned above, languages have their own default case strategy and differ with respect to case realized morphologically on the surface. Two individual languages showing a different default case are in order.

2.4.1. Accusative Case in English

Schütze (1997) argues for the existence of default case in English and lists twelve environments in (31) which he claims could be default case environments. In this subsection, I will introduce and summarize some of his arguments for English default case, which is accusative uniformly in all environments.

(31) a. What? *Her*/*She cheat on you? Never! (Mad Magazine sentence)
b. *Her*/*She in New York is what we must avoid. (argument small clause)
c. *Him*/*He tired, they decided to camp for the night. (adjunct small clause)
d. *Him*/*He liking beans surprised them. *Him*/*He liking beans, they bought some. (NP-ing gerund)
e. It was *us*/*we. There's *me*/*I. The murderer is *her*/*she. (predicate nominal)
f. *Me*/*I, I like beans. Judy thinks that the best student, *her*/?*she, should be president. (left dislocation/appositive)
g. *Me*/*I too. *Me*/*I neither. *Me*/*I next! (ellipsis)
h. Everyone but *them*/*they gets on John's nerves. Students smarter than *her*/*she get no scholarship. The Jets did that, not *us*/*we. (subject of understood predicate)
i. Who did it? -- *Me*/*I. (bare DP reply to question)
j. We can't eat caviar and *him*/*?he (eat) beans. (gapping)
k. *Us* and *them*/*we and they are gonna rumble tonight. (conjoined subject)

l. The real *me*/*I is/*am finally emerging. Lucky *me*/*I gets/*get to apply for a Green Card. How much would *us*/??we with insurance have to pay? (modified pronoun)

To illustrate, I divide the environments into two types according to the existence of INFL: clauses with and without INFL.

2.4.1.1. Clauses without INFL

Given the standard assumption that subject DPs get nominative case from INFL, it is naturally predicted that subject DPs occurring in clauses without INFL fail to get nominative case. If the subject DPs fail to get case from INFL, they get nominative case by default in most well-studied languages including Russian (Babyonyshev 1993), Arabic (Mohammad 1986, 1988), Japanese (Saito 1985, Fukui 1986, Kuroda 1988, Whitman 1987), and Korean (Y. Kang 1986, Y. Kim 1990, E. Lee 1992). Contrary to this general trend, the subject DPs take accusative case by default in English. In what follows, I will briefly review some of significant environments that Schütze argues contain default case in English.

First, Schütze (1997: 191), following Akmajian (1984), refers to the following sentences as the so-called Mad Magazine constructions.

(32) a. What?? *Him* worry/*worries? Never!
b. *What?? He worry? Never!
c. What?? *Him* (*do/*does) not pick up the kids on time??? Never!
d. What?? *Her* thinking about quitting??? Never! [≠ ??*Her* be thinking about quitting]
e. What?? *Him* continually prosecuted??? Never! [≠ ??*Him* be continually prosecuted]
f. What?? *Him* the murderer??? Impossible! [cf. ?**Him* be the murderer]
g. What?? *Me* tired/a doctor??? Never! [≠ *Me* be tired/a doctor]
h. ??What?? *Him* (have) broken a promise?? Never!

i. What?? *Him* (*will/should/could/would/can/must/might) leave the firm??? Never!
j. What?? *Him* able/obliged to leave the firm??? Never!
k *What?? *Him* broke a promise??? Never!

Mad Magazine sentences, as shown above, are characterized by the absence of *be* and by the failure of the verb to show either tense or agreement contrasts.[13] Schütze comes up with the possibility that INFL in this kind of sentence lacks some of the features of finite clauses, in particular, phi-features, and argues that most instances of *be* are realizations of a syntactically empty V node with no features other than its category. These are all environments where normal case assignment is not expected unless the kind of INFL in the sentences above assigns accusative case to its subject position.

Second, the small clauses (SC) in the constructions (33) also lack INFL, and thus accusative case assignment on their subject is puzzling.

(33) a. *Her*/*She in New York is what we must avoid. (*argument SC*)
b. *Him*/*He tired, they decided to camp for the night. (*adjunct SC*)
(Schütze 1997: 53)

It should be noted in (33a) that an agreement relation is established between the SC and the verb, not between the SC subject and the verb. Due to this agreement relation, INFL of the matrix clause is assumed to assign case to the SC itself--if it needs case unlike regular *that*-clauses. The following paradigms show the fact that argument SCs virtually need case, since they behave like DPs, not clauses, with respect to case marking (Schütze 1997: 55).

(34) a. We expected [that she would be in New York].
b. We expected [her in New York].

[13] Following Akmajian (1984), Schütze (p.192) points out that the bare stem form *be* can occur in Mad Magazine sentences, easily with a copular meaning and marginally as a progressive or passive. As indicated in (32d-g), however, the versions with and without *be* are not synonymous. He notes that "those with *be* are necessarily irrealis, while those with no verb can refer to an actual situation in the present."

c. It was expected [that she would be in New York].
d. *It was expected [her in New York].
e. [Her in New York] was expected.
f. We are excited (*about) [that she is on Broadway].
g. We are excited *(about) [her on Broadway].

Note that the SC *her in New York* in (34d) is in a position where no case is assigned--after the passive verb *expected*. The ungrammaticality of (34d) enables us to argue that the SC needs case, unlike the *that*-clause in (34c). The legitimate passive form (34e) indicates that the SC as a whole receives case from INFL, not the SC subject alone, as exemplified in (35).

(35) She$_i$ was expected [t_i in New York].

If this analysis is correct, it is quite tempting to say that the SC subject *her* in (34b) and (34g) does not at least receive case directly from *expected* and *about* respectively. If so, how does it get case? To answer this question, one might come up with an idea that the case assigned to the SC by *expected* can be "transmitted" to the SC subject *her*. This reasoning might be tenable on the grounds that the SC and its subject have the same case, which is accusative.

Now the SC subject in (33) might be assumed to get case in the same manner as above; that is, the SC as a whole receives case from INFL of the matrix clause and its case is 'transmitted' to its subject *her*. This idea, however, is immediately rejected by the fact that there is a case mismatch between the SC and its subject--nominative and accusative, respectively. This ultimately leads us back to the hypothesis that it is default case.

Third, the accusative DPs in the following sentences maintain a coreference relation with the subject of a main clause, but assume a different case form from it. Clearly, we see a repetition of the subject of the main clause.

(36) a. *Me*/*I, I like beans.
b. Judy thinks that the best student, *her*/?*she, should be president.
(*left dislocation/appositive*, Schütze 1997: 53)

It is evident in (36) that INFL of the main clause assigns nominative case to the overt subject DP. It follows from this that the accusative DPs do not obtain accusative case from INFL, leaving us to wonder how they get case. One might raise a possibility that a null preposition like *as for* can assign case to them. Schütze (p. 57), however, argues against this possibility by taking up the requirement that bare DP left dislocations in English should have a resumptive element that *as-for* topics lack, exemplified as follows:

(37) a. *Me*, I like beans.
b. As for *me*, Tuesday is fine.
c. **Me*, Tuesday is fine. (Schütze 1997: 57)

In (37b), *me* is licensed and case-marked by *as for*. (37c), however, is bad because it lacks not only *as for* but also its resumptive pronoun coreferential with it. From (37), it seems that left-dislocated elements in English are licensed by virtue of coreference with their resumptive element. If this licensing fact is correct, we see another instance of licensing separated from case. That is, the left-dislocated element *me* is licensed by its coreferential resumptive element, but not necessarily by its case assigner. When it comes to the issue as to how *me* is assigned case, it is assumed to get case by default independently of its licensing mechanism. Default case assignment to left-dislocated DPs is further evidenced by the following German example that Schütze (p. 57) shows.

(38) *Ich*, ich mag Bohnen.
I I like beans

The fact that German has no overt prepositions assigning nominative case to left-dislocated elements substantially falsifies the hypothesis that posits a null preposition for licensing and assigning case to dislocated DPs, virtually leading us to an argument that left-dislocated DPs get default case in both languages.

Fourth, in constructions like (39) two overt DPs appear in a single clause; one of them, which is nominative, takes an overt predicate, whereas the other takes an understood (covert) one implicated in context (Schütze 1997: 58).

(39) a. Everyone but *them*/*they gets on John's nerves.
b. Students smarter than *her*/*she get no scholarship.
c. The Jets did that, not *us*/*we. (*subject of understood predicate*)

An agreement relation established between *everyone*, not *them*, and the predicate in (39a), for example, reveals that *everyone* is the real syntactic subject of the predicate. This agreement relation enables it to get nominative case from INFL in the usual manner. As far as the accusative DPs are concerned, they have no source for case unless *but* and *than* are treated as prepositions rather than conjunctions. Such a treatment, however, finds its implausibility in the analogous treatment of *not* as a preposition. Taking *but* to be a conjunction, (39a) can be paraphrased as *Everyone gets on John's nerves, but they*/**them do not get on John's nerves*. Two INFLs show up in this paraphrased clause, one of which is made available for *they*, shifting from default case *them* back to normal nominative case.

Fifth, in gapping sentences like (40), the verb as well as INFL is gapped. Schütze (1997: 58), following the original insight of Siegel (1987) and Johnson (1996), asserts

that in (40) the modal meaning of the first clause semantically extends its scope over the second clause. The second clause in this gapped sentence has a strong preference for accusative case pronominal subjects.

(40) a. We can't eat caviar and *him*/*?he (eat) beans. (Schütze 1997: 58)

Siegel (1987: 56) illustrates several situations where the tensed auxiliary can have a different scope in terms of raising, which is more specifically referred to as operator raising within the GB framework.

(41) a. John can't eat caviar and Mary eat beans. WIDE
b. John isn't in the pantry and the baby in the boiler room. WIDE

(42) a. John can't eat caviar and Mary can't eat beans. NARROW
b. John can't eat caviar and Mary, beans. BOTH

First, raising the tensed auxiliary's scope would occur obligatorily if the second clause is tenseless but has a lexical main predicate, whether or not it is a verb (41a,b). Second, raising of the operator of the tensed auxiliary would have to be barred if the second clause is tensed, resulting in the narrow scope reading (42a). Finally, (42b) displays the optional raising of the operator, yielding both wide and narrow scope readings.

As far as the case of *Mary* is concerned, it should be taken to be accusative in (41a) because the second clause is tenseless, nominative in (42a), and nominative or accusative in (42b). A strong preference for accusative case subjects in the tenseless second clause is more clearly shown in the following conversational paradigm (Siegel, p. 61-2).

(43) a. We can't eat caviar and HIM eat beans.
b. HIM eat beans? You've got to be kidding.

(44) a. *We can't eat caviar and HE eat beans.
b. *HE eat beans? You've got to be kidding.

As noted by Siegel above, (43a) has a wide scope reading due to the lack of tense in the second clause. Siegel (p. 70) suggests that tensed auxiliaries can be added as operators on tenseless clauses like (44a). This addition yields a different scope reading and puts the subject of second clauses into its nominative form. Along this line, Schütze (1997: 58-9) distinguishes the two sentences of the following paradigm in terms of scope of the auxiliary.

(45) a. We can't eat corn and SHE beans.
(= We can't eat corn and she can't eat beans)

b. We can't eat corn and HER beans.
(= We can't allow a situation where we eat corn and she eats beans)

As expected, the second clause of (45a) takes the nominative subject due to the addition of the empty operator of the tensed auxiliary, while that of (45b) takes the accusative subject. With regard to the case of the subject of the second clause in (45b), Siegel (p. 70) notes that objective (accusative) case is the "unmarked" form in English, which is taken to be synonymous to a "default" form in Schütze's system and ours.

2.4.1.2. Clauses with INFL

The examples discussed in what follows differ from those considered so far in that accusative DPs are clearly the constituents of finite clauses. First of all, the accusative DPs in (46) are the constituents of finite clauses and, contrary to other constructions of our concern, are not themselves in a subject position.

(46) a. It was *us*/*we.
b. There's *me*/*I.
c. The murderer is *her*/*she. (Schütze 1997: 56)

Observing that the accusative DPs are in post-verbal positions, one might treat them as an object being assigned case by the verb via government, as argued by Maling and Sprouse (1995). If this line of argument is correct, the post-verbal DPs are assumed to receive case from *be*. For this case assignment to be made possible, *be*, like normal transitive verbs, should be able to assign (structural) accusative case. It is, however, fairly well understood in the literature that *be* is a typical unaccusative verb, which is canonically assumed to lack a capacity to assign (structural) accusative case (Stowell 1981, Burzio 1986, Belletti 1988).

Belletti (1988: 2) proposes that although unaccusative verbs like *be* lack a capacity to assign accusative case, they are still able to assign "partitive" case, as illustrated in the following Finnish examples.

(47) a. Pöydällä on kirjoja.
on the table is (some) books(PART, PL)
'There are some books on the table'

b. Helsingistä tulee kirjeitä.
from Helsinki comes (some) letters(PART, PL)
'There come some letters from Helsinki'

Belletti treats *be* and *come* as typical unaccusative verbs and the post-verbal DPs in (47) as their object. According to Belletti, partitive case in (47) is in nature inherent due to the fact that it is typically assigned to the object of unaccusative verbs.

The object of unaccusative verbs is extremely sensitive to what is referred to as the Definiteness Effect (DE); it should be "indefinite" to be grammatical, as exemplified in the following examples.

(48) a. A man is in the garden.
b. There is a man in the garden.

(49) a. The man is in the room.
b. *There is the man in the room. (Belletti 1988: 3)

As shown in the (a) examples, the subject is clearly impervious to definiteness. As far as the object of the unaccusative verb *be* is concerned, it is subject to and ruled out by the DE as in (49b).[14] Therefore, it can be summarized as follows: partitive case can be assigned to the object of unaccusative verbs, which is indefinite in reference.

Now let us go back to the examples in (46). Under Belletti's proposals, the post-verbal DPs are the objects of the unaccusative verb *be*, qualified to be assigned partitive case by the verb. How about their definiteness? The answer is negative. According to the definiteness condition, they fail to get partitive case from the verb, leaving them to be caseless in the object position of *be*. The fact that the examples in (46) are nevertheless grammatical provides us with a strong inclination that default case is involved here.

There is another class of DPs which can take accusative case in finite clauses, that is, pronouns modified by an adjective (50a,b) or a preposition phrase (50c).

(50) a. The real *me*/*I is/*am finally emerging.
b. Lucky *me*/*I gets/*get to apply for a Green Card.
c. How much would *us*/??we with insurance have to pay? (Schütze 1997: 60)

Note that the subject position of the examples above has all the conditions necessary to get nominative case. That is, the clauses are finite and show an agreement relation between their subject and predicate. Nevertheless, the pronouns in the subject position take accusative case, but not nominative case.

With regard to this puzzling case fact, Schütze (1997: 60) proposes that English,

[14] The DPs *a man* in (48a) and *the man* in (49a) are called the *i(nverted)*-subject in Burzio (1986) to refer to any post-verbal DP that can also appear in pre-verbal subject position in sentences not involving the expletive *there*. Along the same line with Belletti (1988), however, I will call them the object of the unaccusative verb *be*.

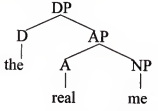
unlike languages like German, "lacks case concord within DP." According to him, D, as a head, bears an m-case feature of the whole DP, but its case feature is not "copied" or "percolated" down to other elements within DP in English. That is, D in the examples receives nominative case from INFL, but the pronouns remain caseless due to the unavailability of case transmission. According to Schütze, the pronouns in (50) are accusative case-marked by default independently of D.[15]

What concerns us further in (50) is how the presence of adjectives is related to the well-formedness of the accusative pronoun within DP. As the examples in (51) show, the accusative pronouns are not allowed without the adjectives.

(51) a. The *me/*I *is/*am finally emerging.
b. *Me/I *gets/get to apply for a Green Card.

The subject DP *the real me* in (50a), for example, will be delineated as (52) under the DP analysis (Abney 1987: 327).

(52)



The adjective, the head of AP, selects NP as its complement. Abney (1987: 281) in fact

[15] What concerns us at this point is how ordinary nouns in English are case-marked. If case transmission from D to N is not allowed in English, we naturally have to assume that ordinary nouns are likewise assigned accusative case by default. Schütze (p.c.) does not exclude this possibility by saying that "nouns are never associated with case in a language like English that never marks it on them," contrary to Ferguson's (1996: 108) argument that "N needs Case features and DP needs Agreement features." Along this line, Schütze (p.c.) distinguishes pronouns from ordinary nouns in terms of case distinctions; that is, the former surface in some case form, showing case distinctions, whereas the latter do not. However, if we take up an N-raising-to-D analysis (Abney 1987, Longobardi 1994a, Siloni 1997, Mohammad 1998), in which N is argued to raise to D to inherit or check the features that D bears, we might be able to distinguish ordinary nouns from pronouns. That is, ordinary nouns are allowed to raise to D, inheriting the corresponding features that D bears, whereas pronouns are prohibited to raise to D due to their same categorial status as determiners in Abney (1987: 281), remaining distinct from D in features.

treats pronouns as determiners, but not as nouns. Such a treatment is based on the co-occurrence restriction of pronouns with determiners as in **The she that I talked to was nice* (Abney 1987: 281). According to Schütze (1997: 60), the presence of the adjective, as shown in (52), hinders the pronoun from occurring in the head position of DP and pushes it down into some lower position, barring their adjacent co-occurrence.

So far, we have observed diverse environments where an accusative DP occurs as a default. The DP in question either is a subject or is related to subject position by coreference or predication. These are positions where we may normally expect to find nominative or genitive case; contrary to fact, DPs with accusative case appear in these positions. In this regard, English constitutes a good place to look for accusative default case. The postulation of default case in these environments does not necessarily exhaust any other possibility. We may come up with an analysis of data in (31) without appeal to default case. This alternative analysis will substantially require appropriate case assigners to the accusative DP, such as accusative-checking INFL, null prepositions that do not straightforwardly correspond to any overt prepositions, or some special, theory-internal, case assignment principles for conjunction. However, the problem with these considerations is, as Schütze points out, that there is clearly no plausible candidate for a unified case-checking analysis of the constructions of our concern.

2.4.2. Nominative Case in Japanese

The issue of how nominative case is assigned in Japanese (and Korean) is in large measure related to the issue of whether there is INFL in these languages as an inde-

pendent syntactic category. First of all, Whitman (1987: 373) argues that Japanese lacks a VP constituent and selects V as the head of S. Along this line of argument, he concludes that case in Japanese is in nature inherently assigned by V. This parametric difference further leads to the conclusion that Japanese lacks INFL, and this conclusion is partly or entirely based on the fact that Japanese does not show any visible agreement between the subject and the verb, and tense and modal elements normally associated with INFL appear as suffixes on the verb.

Fukui (1986) points out that Japanese lacks some grammatical properties which can be used to signal the existence of INFL in English such as "subject-verb agreement,"[16] "subject-Aux inversion," and "nominative island effect." Accordingly, he claims that Japanese lacks an English type INFL, which is entirely responsible for nominative case assignment. Instead, he suggests that INFL may exist in Japanese simply as a "place holder" for the tense morphemes, *-ta* (Past) and *-ru* (Present/Nonpast), without any features in content responsible for nominative case assignment.

This line of argument is further pursued in Fukui and Nishigauchi (F&N, 1992). F&N (p. 2) point out the following three aspects of *ga*-marking in Japanese in an attempt to distinguish it from nominative case assignment in English. First, "multiple occurrences of the nominative case-marker *ga* are allowed within a single sentence." Second, *ga* is sometimes converted into other case markers or postpositions. Third, the grammatical function that *ga* denotes is not always construed as a grammatical subject, the representative example of which might be the nominative object. Looking at these aspects of *ga*-

[16] Fukui (1986: 204) points out that the subject-honorification in Japanese is different in nature from the English type of agreement phenomena in that it does not refer to phi-features. This is parallel in nature to subject-honorification in Korean.

marking in Japanese, they reach the conclusion that INFL in Japanese is not responsible for nominative case assignment. F&N employ the notion of "case-indexing" and "case-assignment" to create a new system of case-marking in Japanese. They explain that functional as well as lexical categories can assign a case-index to an argument that they govern under the notion of c-command rather than m-command. However, it is only the categories with a case-grid that can actually assign case. According to F&N, lexical categories like V have a case-grid and thus can assign a case-index and case to its complement under government. Functional categories in Japanese, on the other hand, are assumed to lack a case-grid and thus cannot assign any case. Adopting the VP-Internal Subject Hypothesis, they propose that SUBJ does not raise into the Spec of INFL to get case. Rather, INFL governs SUBJ in its base position and thus assigns a case-index to it.[17] By assumption, INFL is not able to assign case to SUBJ, but simply "licenses" the realization of "default case" under the structural condition of government.[18,19]

Kuroda (1988) also investigates nominative case assignment in Japanese and proposes that Japanese nominative case is not assigned by INFL. Observing *ga*-marking on noun phrases in contexts other than the V-external position, he suggests that *ga*-marking is not controlled by case theory. He proposes the VP-Internal Subject Hypothesis, and assumes

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[17] According to F&N, government into VP is made possible by V-raising onto I, which makes the V-I complex L-mark VP, voiding its barrierhood.

[18] The use of 'default case' in F&N differs from our use, in which a DP gets some sort of morphologically default case. Default case in F&N is a kind of structural case in that it is assigned under a certain structural condition, that is, under government by INFL. The same line of argument is also pursued by Collins (1993: 43), who argues that a DP is assigned instrumental case in Russian when it is generated in VP-Spec as an argument of the verb. He refers to this case as a 'structural default case' in that it is assigned by default in the minimal domain of a verb.

[19] The mechanism of case-marking in F&N might not be able to account for nominative case-marking on adjuncts in Japanese and Korean, which are not evidently in the domain of government of INFL. See the examples in (28).

that the subject is marked *ga*, licensed by the VP-external position. He applies the VP-Internal Subject Hypothesis to English as well so that the surface subject in the two languages is generated VP-internally at D-structure. He asserts, however, that a parametric difference arises between the two languages in terms of subject NP-movement. That is, in English the VP-internal subject is forced to move to the Spec IP position to receive nominative case from Agr in INFL, whereas in Japanese such a movement is not forced, since the subject is assigned case in the VP-external position in one way or another. This parametric difference between the two languages has a consequence for the EPP requirement; the EPP holds for English, while it does not for Japanese.

Saito (1985) examines the aspects of the Japanese subject and object in terms of case marking. He (p. 197) suggests that "objective case is assigned by the verb to its object, whereas nominative case is inherent in that it is not assigned by any element, that is, INFL." His suggestion primarily rests on the following arguments.

First, nonarguments in Japanese can take the nominative marker *ga*, as shown in the following example (Saito 1985: 198).

(53) Yahari, [$_S$ natu-*ga* [$_S$ biiru-*ga* umai]]
after all summer-N beer-N tasty
'After all, it's during the summer that beer tastes good'

Saito says that *natu* 'summer' is not an argument of the predicate *umai* 'tasty'. As the English translation shows, 'summer' in English is treated as a temporal adjunct headed by a preposition. On the contrary, its Japanese counterpart appears as a bare noun and takes the nominative marker *ga*. Moreover, there is no upper limit to the number of nonargu-

ments with nominative case in a sentence with a single predicate, as shown in the following example of Kuno (1973: 364).[20]

(54) [$_S$ Bunmeikoku-*ga* [$_S$ dansei-*ga* [$_S$ heikinzyumyoo-*ga* mizikai]]]
civilized country-N male-N average life-span-N short
'It is in civilized countries that males - their average life-span is short (in)'

One might take INFL to be a case assigner to nonarguments with *ga* as in English. Saito (1985), however, doubts even the existence of an INFL which could be responsible for nominative case assignment, since Japanese lacks the English-type agreement (person, number, and gender) between the subject and the verb. He (p. 200) adds that "even if there is an abstract agreement element in Japanese, it is extremely unlikely that this element or a verb can assign nominative case to any number of elements across any number of sentence boundaries."

Second, a nominative case marker in Japanese may not delete even in colloquial speech, whereas an accusative case marker drops freely in the same style (Saito 1985: 207-8):

(55) a. Dare-*(*ga*) kita no?
who-*(N) came
'Who came?'

b. Nani-(o) yonderu no?
what-(A) reading
'What (are you) reading?'

(55) is referred to as the "case marker drop" phenomenon. Saito attributes the ungrammaticality of (55a) arising from the nominative case marker drop to a violation of the Case

[20] Kuno (1973: 364) takes the example in (54) to be derived from its underlying sentence below containing nouns with the possessive marker *no*, the process of which he calls *subjectivization*.

(i) Bunmeikoku-*no* dansei-*no* heikinzyumyoo-*ga* mizikai.
civilized-country's male's average-life-span is-short
'It is the average life-span of males of civilized countries that is short'

Filter. Saito accounts for the asymmetry between the subject and the object shown in (55) in terms of a different pattern of case assignment. That is, the object of a transitive verb gets abstract case from the verb, but no abstract case is assigned to the subject position. According to Saito, if the subject NP appears without the overt nominative case marker, it is in violation of the Case Filter since it lacks both overt case marker and abstract case.

So far, we have observed the aspects of nominative case marking in Japanese. It is not surprising at all that most Japanese researchers have doubt on the existence of INFL as an independent syntactic category due to the lack of an overt agreement phenomenon between the subject and the verb. This fact has led most of them to an alternative system of case assignment to the subject. Since the nominative case marker fails to show a unified syntactic position where it occurs, nominative case is taken to be "inherent" in place (Saito 1985, Whitman 1987). Under our proposals, it must be that Japanese nominative case is a default in that it is not assigned by any element within a sentence.

Under our default case strategy, the ungrammaticality of Saito's example (55a) receives a better explanation as follows. In languages like Japanese and Korean all DPs must bear a morphological case marker to overtly show case. If the subject DP in (55a) is not assigned case by any element, as Saito claims, it is caseless on the surface, violating the Case Filter. For the caseless subject to stand legitimately in a sentence, it must get case in one way or another. As a last resort, it obtains case by 'default'. Since a default case feature is inserted after the syntax, a "late" insertion in the sense of Halle and Marantz (1993), Marantz (1996), and Halle (1997), this default case feature is required to be realized morphologically by its appropriate case marker. If the subject DP in (55a) is

without any overt case marker, it is not obvious whether it has a default case. In this occasion, it should be taken to have no default case, and hence ungrammatical in violation of the Case Filter.

2.5. Default Case and Feature Checking

2.5.1. The VP-Internal Subject Hypothesis and the EPP

In earlier versions of GB syntax (Chomsky 1981, 1986a), a transitive sentence such as *John cut the orange* will presumably have a D-structure representation like (56), in which the subject is assumed to be base-generated in the Spec of IP.

(56) [$_{IP}$ John INFL [$_{VP}$ cut the orange]]

Being base-generated in the Spec of IP, the subject receives case from INFL without any movement and satisfies the Extended Projection Principle (Chomsky 1981, 1982).[21]

With the advent of the VP-Internal Subject Hypothesis (Kuroda 1988; Sportiche 1988; Koopman and Sportiche 1991; Fukui 1986), however, this structure is now represented as in (57), in which the subject is base-generated in the Spec of VP (VP-internally).

(57) [$_{IP}$ INFL [$_{VP}$ John cut the orange]]

In (57), the subject and the object receive an external and internal theta-role from the verb respectively. A compelling piece of evidence for the VP-Internal Subject Hypothesis comes from Sportiche (1988). Consider the following example.

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[21] In Chomsky (1981, 1982) the Extended Projection Principle is stated as follows:

(i) a. Representations at each syntactic level (D-structure, S-structure, and LF) are projected from the lexicon, in that they observe the subcategorization properties of lexical items.
b. Every clause must have a subject.

(58) a. The men will all cut oranges.
b. The men$_i$ will all t$_i$ cut oranges.

Sportiche argues that the floating quantifier *all* in (58a) is associated with the trace of the subject in (58b). If this is the case, it strongly implies that the subject has moved out of VP containing the quantifier *all*.

Compared with Chomsky's (1981, 1986a) hypothesis, the VP-Internal Subject Hypothesis needs an explanation why the subject base-generated VP-internally is forced to move to the IP-Spec position. This could be explained from two different perspectives. First, it is assumed to raise to the position simply to satisfy the Extended Projection Principle (EPP, Chomsky 1981), which states that a clause must have a subject; more specifically, IP-Spec must have a subject in it in every syntactic level. Second, it moves to the position for case reasons, since the subject does not receive any case in situ, violating the Case Filter.

It should be noted that the EPP account lacks a theoretical motivation; it is simply a stipulation. Fukui and Speas (1986) suggest the following principle in an attempt to remove such a stipulation from the universal grammar.

(59) a. Every position in a grid is discharged.
b. If X discharges a position in a grid of Y, it discharges only one.

By extending Higginbotham's (1985) saturation principle, which is stated exclusively about theta-role assignment, they incorporate case assignment into the principle. The principle in (59) indicates that if a lexical or functional item bears a case position in its grid, the position must be discharged. If T, for example, bears a case position in its grid to discharge, the subject is forced to move to the Spec of T to discharge a case that T bears.

The EPP in Chomsky (1981, 1982) is treated to be stipulative in that it lacks a motivation of syntactic movement of a subject DP. Contrary to this, the saturation principle of Fukui and Speas (1986) is more refined since it can account for the movement of the subject DP in a principled way. Hence, the subject DP in (57) is motivated to move to the Spec of INFL to discharge a case that it bears. Under the saturation principle, the EPP is implemented by the requirement that the case of INFL be discharged.

The saturation principle of Fukui and Speas (1986) in terms of case, however, is challenged by Marantz (1992). He claims that DP-movement to a syntactic subject position is forced by the EPP, not by abstract case requirement. He presents the following Icelandic examples to show this fact.

(60) a. María óskaði (Ólafi) alls goðs.
Mary-N wished Olaf-D everything-G good-G

b. þess var óskað.
this-G was wished

c. henni var óskað þess.
her-D was wished this-G (Marantz 1992: 241)

The two object DPs in (60a) get quirky case by virtue of being objects of the verb. Interestingly, they preserve this quirky case in the passive. Marantz (1992: 241) illustrates that the passive versions of (60a) are consistent with the notion that it's the EPP, not the need for abstract case, that is forcing the DPs with the quirky case DPs to become a subject in (60b,c).

In Chomsky (1995), DP-movement to the subject position to satisfy the EPP is expressed by feature checking. In the minimalist framework, the EPP ultimately reduces to a strong D-feature of I(T). Given that T has an intrinsic categorial D-feature and case

feature, these two features can participate in attracting SUBJ overtly or covertly depending on their strength. First, we can suppose that the D-feature of T is strong as in most languages. Then, this strong D-feature induces overt movement of a subject DP and enters into a checking relation with the raised categorial feature of the subject DP. Since the entire subject DP has been raised overtly, other features of it are naturally pied-piped.[22] The case feature and phi-features of the subject are a free rider and checked at LF after covert raising of the verb establishes the required checking relation. If the case feature of T is strong, on the other hand, it induces overt raising of the subject DP, and the D-features and phi-features in turn become a free rider and checked later by their appropriate functional category.

2.5.2. DP-Movement

In earlier versions of the P&P theory (Chomsky 1981, Chomsky and Lasnik 1991), DP (NP)-movement is motivated for case reasons. DPs are forced to move in search of case to a position where case is assigned, as exemplified in (61):

(61) a. $John_i$ was hit t_i.
b. $John_i$ seems t_i to be honest.

The passive morphology *hit* is assumed to lack the ability to assign case due to case absorption in (61a), and the nonfinite complement clause is not able to give case to its

[22] One might think of the possibility that the subject DP is raised with only its D-feature leaving behind the other features such as case and phi-features. In this case, however, it does not receive Full Interpretation by the PF convergence condition, stated as follows (Chomsky 1995: 262-3):

(i) a. F carries along just enough material for convergence.
b. Isolated features and other scattered parts of words may not be subject to the rules of PF component, which violates Full Interpretation (FI), causing the derivation to crash at PF interface.

subject DP in (61b). For these reasons, *John* is forced to move to the matrix position to get case. This analysis will bring us an immediate question of whether DPs with default case are forced to move analogously for case reasons. In what follows, I will pursue this issue, centering around passive and raising constructions in Korean and Japanese.

2.5.2.1. Passives

Miyagawa (1989) provides evidence for DP-movement in the direct passive in Japanese. His argument is based on the syntactic behavior of a numeral quantifier, which usually consists of a numeral and a classifier (CL) that agrees with the type of object counted. Consider the following examples.

(62) a. doroboo-ga kuruma-o san-dai nusunda.[23]
thief-N car-A 3-CL stole
'A thief stole three cars'

b. *doroboo-ga kuruma-o san-nin nusunda.
thief-N car-A 3-CL stole
'Three thieves stole a car'

(63) a. totuk-i cha-lul sey-tay humchiessta.
thief-N car-A 3-CL stole

b. *totuk-i cha-lul sey-myeng humchiessta.
thief-N car-A 3-CL stole

The examples in (63) are Korean equivalents to the Japanese ones in (62); they share the structure, meaning, and grammaticality with the Japanese ones. In the (a) examples in the above paradigm, the quantifier phrase (QP) modifies the object, while in the (b) examples

[23] The major classifiers in Korean and Japanese are as follows:

	persons	animals	objects
Korean:	myeng, pwun(HON)	mali	kay, tay, kwon, kulu
Japanese:	nin	hiki	satu, hon

it modifies the subject. The ungrammaticality of the (b) examples is attributed to the Mutual C-Command Requirement violation, stated in Miyagawa (1989: 30) as follows:

(64) Mutual C-Command Requirement
For a predicate to predicate of a NP, the NP or its trace and the predicate or its trace must c-command each other.

Following Willams (1980), Miyagawa sees an NP and its QP to be in a predication relation; the latter is a predicate of the former. Hence, the requirement in (64) is interpreted as a mutual c-command between an NP and its QP. In the (b) examples, a mutual c-command relation does not hold, since the NP c-commands its QP, but not vice versa.

Now let us see how movement is involved in the passives in connection with the requirement in (64):

(65) a. yuube, kuruma-ga [$_{VP}$ doroboo-ni 2-dai nusum-are-ta].
last night car-N thief-by 2-CL steal-PASS-PAST
'Last night, two cars were stolen by a thief'

b. eceypam, cha-ka [$_{VP}$ totuk-eke 2-dai humchi-e-ci-ess-ta]. (Korean)
last night car-N thief-by 2-CL steal-VA-PASS-PAST-DEC
'Last night, two cars were stolen by a thief'

The subject NPs and their QPs seemingly do not c-command each other, since the former are placed in IP-Spec; mutual c-command between the two is barred due to the intervening maximal projection VP. Miyagawa (1989) comes up with a plausible way to maintain the mutual c-command relation between the two in terms of trace in order to show overt movement of the subject NPs out of VP, leaving a trace in it. The configuration of this movement is delineated as follows:

(66) a. yuube, [$_{IP}$ kuruma$_i$-ga [$_{VP}$ doroboo-ni t_i 2-dai nusum-are-ta]].[24]
b. eceypam, [$_{IP}$ cha$_i$-ka [$_{VP}$ totuk-eke t_i humchi-e-ci-ess-ta]].

What happens if the subject NPs are adjoined to VP? As (68) shows, a mutual c-command relation still holds between the two phrases via their trace.

(67) a. yuube, [$_{IP}$ [$_{VP}$ kuruma$_i$-ga [$_{VP}$ doroboo-ni t_i 2-dai nusum-are-ta]]].
b. eceypam, [$_{IP}$ [$_{VP}$ cha$_i$-ka [$_{VP}$ totuk-eke t_i 2-dai humchi-e-ci-ess-ta]]].

Due to a head-final parameter in both languages, the surface order of the two phrases is the same in (66) and (67). However, the analysis of (66) is preferred to that of (67) by the universal grammar, since the movement of the subject NPs in (66) is motivated, that is, for case reasons in Miyagawa.

Ahn (1990) shows instances of syntactic DP-movement in Korean passives based on scope ambiguity between two quantifiers. Consider the following paradigms of active and passive sentences (p. 194);

(68) a. [$_{IP}$ haksaying hana-ka [$_{VP}$ *motun* kyosa-eke senmul *hana*-lul ponay]-ss]-ta.
student one-N all teacher-to present one-A send-PAST-DEC
'One student sent one present to all (the) teachers'

b. [$_{IP}$ senmul *hana*$_i$-ka [$_{VP}$ *motun* kyosa-eke t_i ponay-ci]-ess]-ta.
present one-N all teacher-to send-PASS-PAST-DEC
'One present was sent to all (the) teachers'

(69) a. [$_{IP}$ kyengchalkwan *hana*-ka [$_{VP}$ *motun* milsukkun-ul cap]-ass]-ta.
policeman one-N all smuggler-A catch-PAST-DEC
'One policeman caught all (the) smugglers'

b. [$_{IP}$ milsukkun *hana*$_i$-ka [$_{VP}$ *motun* kyengchalkwan-eke t_i cap-hi]-ess]-ta.
smuggler one-N all policeman-by catch-PASS-PAST-DEC
'One smuggler was caught by all (the) policeman'

[24] The QPs can precede the NPs to modify them; in this case the genitive marker *euy* (*no* for Japanese) should be attached to the QPs. It is shown that in (66) the QPs are not attached by the marker, and thus the subject NPs are assumed to have originated from the trace position prior to the QPs.

According to Ahn, the active sentences in (68a) and (69a) are not semantically ambiguous. (68a) only means that just one student was involved in the event of present-sending; (69a) only means that only one policeman was responsible for catching all the smugglers. Their passive counterparts, on the other hand, exhibit ambiguity in interpretation. That is, (68b) may mean either that a single present was sent to the group of teachers, or that a present was sent to each of them. (69b) may mean either that a single smuggler was caught by all policemen, or that a smuggler was caught by each policeman.

Kim and Larson (1989) observe that scope is generally determined by the surface c-command relationship of QPs. The two quantifiers in the active sentences maintain their uniform c-command relation because no movement is involved, and thus no semantic ambiguity arises. Those in the passive sentences, however, give rise to ambiguity in interpretation. This is due to the fact that a trace left after movement participates in forming relative scopal interaction with other quantifier(s). Following Joo (1989), Ahn (1990) accounts for the scopal relation of the quantifiers in the passives as follows:

(70) a. Uniformity on Scope Interpretation
If Q_i c-commands Q_j, Q_i may have scope over Q_j.

b. Scope Principle
If Q_i c-commands a trace of Q_j, Q_i may have scope over Q_j.

By principle (70b), the two quantifiers in the passive sentences in (68)-(69) may have relative scope over each other. The semantic ambiguity of the passives in turn confirms the fact that syntactic NP(DP)-movement is apparently involved in them.

Ahn suggests that the subject DP containing a quantifier moves to the Spec of IP for a case reason, resulting in semantic ambiguity. This is a natural consequence for him, since

he proposes that Korean nominative case is assigned by INFL(Agr). However, the analysis of syntactic NP(DP)-movement by means of case runs into trouble in raising constructions, which will be discussed shortly.

Under our default case strategy, Korean passives receive a different analysis with regard to movement. Since it is assumed that nominative case in Korean is assigned by default throughout the dissertation, subject DPs in passives are forced to move for a different reason. I propose that they are forced to move the Spec of T to check a strong D-feature of T, satisfying the EPP at PF. Observing semantic ambiguity at SS (in the sense of GB), we note that DP-movement in passives takes place overtly at SS. Accordingly, T in Korean is "strong." By "strong" I mean that one of its features, that is, the D-feature, is strong, as assumed by Ura (1996) for Japanese and Korean. When it comes to the default case feature of SUBJ, it need not and cannot be checked by T because T has no ability or responsibility to perform the task. This derives from our assumption made earlier that T in Korean is assumed to have no intrinsic case features.

2.5.2.2. Raising constructions

A raising verb in Korean (presumably Japanese as well) should be defined differently from English due to the fact that Korean has no expletives. Ahn (1990: 200) describes a raising verb as "one which does not assign a thematic role to the subject position but which may nonetheless have a 'nonexpletive' DP at its surface position." As is well known, in English the subject position of raising verbs is occupied either by an expletive or by an embedded subject. In particular, when an embedded clause is nonfinite, the

subject of the embedded clause is obligatorily moved to the position in question to get case.

DP-raising in Korean raising constructions is seemingly vacuous, since neither a complementizer nor a verb intervenes between a matrix subject position and an embedded subject position. A justification of overt raising in these constructions calls for empirical as well as theoretical evidence. Ahn (1990) seeks evidence for raising from honorific agreement between the subject and the verb.

(71) a. [apeci-ka ka-*si*-ess-ul tus] sip-ta.
father-N go-HON-PAST-COMP seem-DEC
'It seems that (my) father went'

b. [apeci-ka ka-*si*-ess-ul kes] kath-ta.
father-N go-HON-PAST-COMP be likely
'It is likely that (my) father went'

Based on the observation that the honorific suffix *si* is attached only to the embedded verb, Ahn says that subject DPs remain in their original embedded subject position. Now let us see what happens if the suffix attaches to the matrix verb.

(72) a. apeci-ka ka-l tus sip-*usi*-e.
father-N go-COMP seem-HON-DEC
'My father seems to go'

b. apeci-ka ka-l kes kath-*usi*-e.
father-N go-COMP be likely-HON-DEC
'My father is likely to go'

A close look at the examples in (72) displays a vacuous movement of the embedded subject. Nonetheless, Ahn suggests that the embedded subject *apeci* 'father' has moved to the matrix subject position, delineated as follows:

(73) a. $apeci_i$-ka [$_{CP}$ [$_{IP}$ t_i [$_{VP}$ ka]]-l tus] sip-*usi*-e.
b. $apeci_i$-ka [$_{CP}$ [$_{IP}$ t_i [$_{VP}$ ka]]-l kes] kath-*usi*-e.

He asserts that the embedded subject has moved to the matrix subject position to show honorific agreement with the matrix verb attached by the honorific suffix. However, this analysis provokes some theoretical problems in the following respects. First, if the embedded verb is likewise attached by the honorific marker, it is not obvious whether it should raise further to the matrix subject position to show additional agreement with the matrix verb. If it moves, it will run into a case conflict; under his case theory, Korean nominative case is assigned by Agr, and hence the subject will be assigned case twice: one from the embedded Agr and the other from the matrix Agr. Second, his reasoning, following Pollock (1989), that nonfinite clauses lack Agr due to its nonfiniteness will leave unexplained a variety of nominative case assignment of them. As illustrated earlier, the subject of nonfinite clauses in Korean can take nominative case as in (20), repeated here as (74).

(74) [puca-*ka* chendang-e ka-(*ess)-ki-ka] elyep-ta.
the rich-N heaven-to go-(*PAST)-NML-N difficult-DEC
'It is difficult for the rich to go to the heaven'

His reasoning is further falsified by the fact that the nonfinite embedded clause in (74), which is assumed to lack Agr in Ahn (1990) by virtue of being nonfinite, can also take the honorific suffix as follows:

(75) [apeci-ka chendang-e ka-*si*-(*ess)-ki-ka] elyep-ta.
father-N heaven-to go-HON-(*PAST)-NML-N difficult-DEC
'It is difficult for my father to go to the heaven (after he dies)'

The feature checking mechanism of the minimalist theory provides a more principled account of Korean raising constructions. Recall that [1] Korean lacks an Agr category, [2] the functional category T is not responsible for nominative case assignment and thus

nominative case is assigned by default, and [3] T is strong in Korean. With these facts in mind, let us look at the following examples.

(76) a. $apeci_i$-ka [$_{CP}$ [$_{IP}$ t_2 [$_{VP}$ t_1 ka-*si*]-ess]-ul tus] sip-ta.
father-N go-HON-PAST-COMP seem-DEC
'(My) father seems to have gone'

b. We are likely [t_3 to be asked [t_2 to [t_1 build airplanes]]]
R3 R2 R1

These two examples are assumed to be derived by raising their subject base-generated VP-internally. First, in (76b) *we* has raised overtly and successively from its deepest VP-internal position up to the matrix subject position. Its raising satisfies the EPP in two embedded clauses by R(aising)1 and R2 and one matrix clause by R3. This successive feature checking is possible, since the D-feature of a DP is not erased even after it is checked. As far as the case feature of the subject *we* is concerned, it is checked by T of the matrix clause as a free rider. The case feature of *we* is not checked in the trace positions because the nonfinite T is not able to check nominative case feature.[25] Finally, when the subject DP arrives at the matrix, it checks its (nominative) case feature against the matrix T.

Turning to the Korean example in (76a), the subject DP *apeci*, base-generated VP-internally, is assumed to have raised to the matrix subject position. On the road to its target position, it satisfies the EPP of the embedded clause (t_2) and finally of the matrix clause. When it comes to its case feature, it need not be checked because it does not exist within the syntax. If Korean nominative case is assigned by INFL(Agr), we will expe-

[25] According to Chomsky and Lasnik (1991), PRO is assigned a null case by an infinitive. The traces of *we* are shown to be in the position where a null case feature is checked. Therefore, the subject is assumed to skip the position until it arrives at the Spec of the matrix T to check its case feature.

rience a case conflict; the embedded subject *apeci* will be assigned nominative case first at the Spec of I (t_2), and then again at the Spec of the matrix I. A close look at (76a) will reveal that the embedded clause is, unlike the English example (76b), finite due to the presence of the past morpheme and the overt complementizer. Nevertheless, the embedded subject DP has moved across the finite clause boundary, which is apparently an instance of "superraising."[26]

2.6. Conclusion

This chapter has begun with pursuing the issue of whether there is an Agr category in Korean coupled with the issue of how Korean nominative case is assigned. We have reached the conclusion that there is no Agr in Korean and that Korean nominative case is assigned by default. I have argued that the so-called "number agreement" and "subject-honorification" are not an agreement phenomenon in the sense of phi-features (person, number, and gender). I have also illustrated the aspects of T in Korean in finite and nonfinite clauses and found out that T does not have any effect on assigning nominative case. These two facts have led us to conclude that Korean nominative case is a default.

In addition, I have examined cross-linguistic data which I claim contain default case. Although these data are of numerous sentence types, they can be readily reduced to a single syntactic environment where no structural case is assigned. A contrastive examination of such cross-linguistic data displays a parametric difference of default case: accu-

[26] "Superraising" roughly means that a DP moves up beyond the subject of a clause, or skips a potentially A-position, to an A-position in a higher clause. See chapter 3 for detailed discussion of "superraising."

sative case in English and nominative case in Japanese. It follows that each particular language has its own unique default case strategy to deal with syntactically caseless DPs.

A default case system has some consequences for the syntactic operation called "feature checking." As opposed to the standard assumption that syntactic DP-movement is motivated for case reasons, in our default case system DPs are assumed to move for a different reason, that is, for D-feature checking. I have established that passive and raising constructions in Korean and Japanese involve overt syntactic DP-movement, and I have argued that their movement is forced not for a case reason but for D-feature checking because in these languages the D-feature of T, as argued by Ura (1996), is taken to be strong enough to induce overt movement of a subject DP.

CHAPTER 3
ECM CONSTRUCTIONS AND SUPERRAISING

3.1. Introduction

The so-called Exceptional Case Marking (ECM) constructions shown below have drawn a lot of attention from researchers, primarily because they raise three interesting issues: (I) how the Projection Principle is satisfied, (II) what grammatical relation holds between the embedded accusative DP and the matrix verb, and (III) how the embedded accusative DP is case-licensed by the matrix verb.

(1) a. John believes [him/*he to be intelligent]
b. John believes [he/*him is intelligent]

Due to the same syntactic behaviors as a regular object in passives, *him* in (1a) has been treated as the object of *believe* after raising to the matrix on the one hand (Postal 1974); due to the same grammatical function as *he* in (1b), it has been treated as the real subject of the embedded infinitive on the other (Chomsky 1981, Masam 1985).

The embedded complement clause also exhibits a disparity between IP and CP among researchers. Chomsky (1981) suggests that the ECM verb *believe* takes an IP, not CP, as its complement. In contrast, Masam (1985) suggests that the ECM verb takes CP and the ECM subject raises to the CP-Spec to get case-marked by the matrix verb. The intuitive idea behind these suggestions is that *him* should be base-generated as the subject of the embedded clause to satisfy the Projection Principle and it simply receives case from the matrix verb in situ.

Recently, Chomsky (1993, 1995) creates a new theoretical framework, called the minimalist program, and suggests that the ECM subject raises to the Spec of the matrix *v* (Agro in 1993) for feature checking at LF. However, a lot of empirical evidence has been accumulated cross-linguistically which shows overt raising of the ECM subject (Jonas & Bobaljik 1993, Collins & Thráinsson 1993, Koizumi 1993, Ura 1993, Bošković 1996).

This chapter attempts to provide a more principled account of ECM constructions in several languages including Korean and English based on the minimalist theory (Chomsky 1995). In this chapter, I propose that the ECM subject in Korean and English raises to the Spec of the matrix *v* to check the strong features of *v* at overt syntax. Since the specifier position of *v* is a non-theta-position but an A-position, overt raising of the ECM subject to the position does not violate the Theta-Criterion and/or the Projection Principle. I will also show that the default case mechanism in Korean and some other languages helps to account for the unique ECM aspects illustrated in section 2.

This chapter is organized as follows. In section 2, I will illustrate the properties of ECM constructions across languages. In section 3, previous accounts of ECM constructions will be presented such as Raising to Object (Postal 1974), Control (Koster 1978), S'-deletion (Chomsky 1981), and Raising to CP-Spec (Masam 1985, J-M. Yoon 1991, J. Lee 1992). Section 4 presents an analysis under the minimalist theory. In this section, I will present arguments for overt movement of the ECM subject and the main verb in English and Korean. Since the possibility of overt main verb movement in English has previously been suggested in Pesetsky (1989), Johnson (1991), and Koizumi (1993), I will start with reviewing them. In section 5, I will discuss the grammatical aspects of superraising, the

detailed descriptions of which were held in chapter 2. As in Ura's (1996) prediction that superraising is allowed in a language which shows the phenomenon of possessor-raising and multiple Specs of T, Korean shows the phenomenon of superraising in psych-verb constructions, in which an object DP, when ECMed, overtly raises beyond a subject DP.

3.2. ECM Facts across Languages

In English, ECM occurs when a matrix verb exceptionally assigns case to the embedded subject of an infinitive across a clause boundary. This whole picture is drawn on the following assumptions. First, the infinitive is unable to assign case to its subject. This fact has been taken to be the core property of infinitives in the universal grammar. Second, the matrix verb takes an IP complement. Since the specifier of a complement is accessible to government (Chomsky 1986b), the matrix verb governs and is therefore able to exceptionally assign case to the embedded subject position. However, a cross-linguistic investigation of a wide range of ECM constructions forces us to draw a different picture of the constructions. In what follows, I will illustrate the cross-linguistic properties of ECM to draw a new picture.

3.2.1. ECM into a Finite CP

In some languages, unlike English, ECM can occur when a matrix verb takes a finite embedded clause headed by an overt complementizer. The following Korean example shows this fact.

(2) Korean
Chelsu-nun [Suni-lul yeppu-ess-tako] mit-ess-ta.
TOP A pretty-PAST-COMP believe-PAST-DEC
'Chelsu believed Suni to be pretty'

The embedded clause is finite because it contains the past tense morpheme and is headed by the overt complementizer. Nonetheless, the embedded subject *Suni* gets case from the matrix verb across a CP clause boundary.

We can find another parallel example from Imbabura Quechua (Cole and Hermon 1981). It is shown that in this language most complement clauses are nominalized by adding suffixes to a verb, which indicate tense and mood.

(3) Imbabura Quechua (Cole and Hermon 1981)
Maria-ca yacha-n [Francisco-ta cay-pi ca-j-ta].
TOP know-3 A this-in be-PRES-NML-A
'Maria knows that Francisco is here'

The embedded clause, here again, is considered to be finite due to the fact that the nominalizer indicates present tense.

The example in (4b) shows that the ECM subject moves out of the finite embedded clause and overtly raises to the matrix clause.

(4) Malagasy (Travis 1991)
a. Nanantena iRakoto [$_{CP}$ fa nianatra tsara ny ankizy]
PAST-hope-AT Rakoto COMP PAST-study good the children
'Rakoto hoped that the children studied well'

b. Nanantena *an'* ny ankizy$_i$ [$_{CP}$ ho nianatra tsara t_i] iRakoto.
PAST-hope-AT A the children COMP PAST-study good Rakoto
'Rakoto hoped that the children studied well'

The ECM subject *ny ankizy* in (4b) appears unambiguously to the left of the complementizer, which marks the edge of the complement clause. Travis argues that the landing site for accusative case assignment is within the matrix VP.

3.2.2. Case Alternation

The embedded subject in Korean shows case alternation between nominative and accusative case. When the embedded subject takes accusative case, it is taken to be ECMed. In this regard, ECM is optional (J-M. Yoon 1991, J. Lee 1992).

(5) a. Chelsu-nun [Suni-*ka* yeppu-ess-ta-ko] mit-ess-ta.
TOP N pretty-PAST-DEC-COMP believe-PAST-DEC
'Chelsu believed that Suni was pretty'

b. Chelsu-nun [Suni-*lul* yeppu-ess-ta-ko] mit-ess-ta.
TOP A pretty-PAST-DEC-COMP believe-PAST-DEC
'Chelsu believed Suni to be pretty'

J-M. Yoon (1991) and J. Lee (1992) suggest that in (5a) the embedded subject independently gets nominative case from INFL within the embedded clause, while in (5b) it gets accusative case from the matrix verb, forming an ECM construction.

J-M. Yoon (1991), citing Cole and Hermon (1981) and Masam (1985), gives another example showing case alternation.

(6) Imbabura Quechua (Cole and Hermon 1981)
a. Maria-ca yacha-n [Francisco-*o* cay-pi ca-j-ta].
TOP know-3 N this-in be-PRES-NML-A
'Maria knows that Francisco is here'

b. Maria-ca yacha-n [Francisco-*ta* cay-pi ca-j-ta].
TOP know-3 A this-in be-PRES-NML-A
'Maria knows that Francisco is here'

(7) Niuean (Masam 1985)
a. To nakai toak e au [ke kai *he* pusi e ika].
FUT not let ERG I SUB eat ERG cat ABS fish
'I won't let the cat eat the fish'

b. To nakai toak e au [*e* pusi]$_i$ [ke kai t_i e ika].
FUT not let ERG I ABS cat SUB eat ABS fish
'I won't let the cat eat the fish'

It is shown that Quechua, like Korean, shows case alternation between nominative and accusative case, whereas Niuean between ergative and absolutive case. Since Niuean is a language of ergative case system, the ECM subject of the transitive verb receives absolutive case in (7b) from the matrix verb.

3.2.3. ECM of Nonsubjects

While in English ECM is possible only to the subject of infinitival clauses, in languages like Korean, Quechua, Niuean, and Kipsigis ECM is allowed to nonsubjects. The following examples are drawn from J-M. Yoon (1991).

(8) Imbabura Quechua (Jake and Odden 1979)

a. chai jari-ca crin [yachachij warmi-man wawa-ta cara-ju-y-ta].
that man-TOP believe teacher-N woman-D baby-A serve-PROG-PRES-A
'The man believes the teacher is handing the baby to the woman'

b. chai jari-ca $warm_i$-*ta* crin [yachachij t_i wawa-ta cara-ju-y-ta].
that man-TOP woman-A believe teacher-N baby-A serve-PROG-PRES-A
'The man believes the teacher is handing the baby to the woman'

c. chai jari-ca $wawa_i$-*ta* crin [yachachij warmi-man t_i cara-ju-y-ta].
that man-TOP baby-A believe teacher-N woman-D serve-PROG-PRES-A
'The man believes the teacher is handing the baby to the woman'

(9) Niuean (Seiter 1980)
To nakai toka e au [*e* ika]$_i$ [ke kai he pusi t_i].
FUT not let ERG I ABS fish SUB eat ERG cat
'I won't let the fish be eaten by the cat'

(10) Korean (J-M. Yoon 1991)

a. na-nun [Chelsu-ka ton-i/*-ul manh-ta-ko] sayngkakha-n-ta.
I-TOP N money-N/*A much-DEC-COMP think-PRES-DEC
'I think that Chelsu has a lot of money'

b. na-nun ton_i-*ul* [Chelsu-ka t_i manh-ta-ko] sayngkakha-n-ta.
I-TOP money-A N much-DEC-COMP think-PRES-DEC
'I think that Chelsu has a lot of money'

Note that the embedded benefactive DP in (8b) and the object in (8c), (9), and (10b) are ECMed. It is shown that when they are ECMed, they obviously move across the embedded subject to a position where they are governed by the matrix verb; it can be an IP-adjoined position, a Spec of CP, or the matrix object position. This is one of our major concerns in this chapter.

3.2.4. Questions

Observing the properties of ECM across languages, we can raise the following relevant questions. First, why does the embedded subject get accusative case from the matrix verb even when it can get nominative case from INFL of the finite embedded clause?[1] As is well known in English, the embedded subject gets case from the matrix verb due to the inability of the infinitive to assign case to its subject. This is the reason why ECM in English is restricted only to the subject of the infinitive. Relevant to this question are how the matrix verb is able to govern the embedded subject across the CP boundary and how the Tensed S Condition is satisfied (Chomsky 1977).

Second, if the embedded subject takes either nominative/ergative case or accusative/absolutive case, what is the motivation behind this? This challenges the basic assumption that ECM takes place for case-motivated reasons. This is reminiscent of the assumption that ECM is optional in some languages that we have illustrated.

Third, when embedded nonsubject elements like a benefactive DP and an object DP are ECMed beyond an embedded subject, how is Chomsky's Minimal Link Condition

[1] This question is asked based on the assumption that in these languages nominative case is assigned by INFL. If nominative case is assumed to be assigned by default as in Korean, on the other hand, this question will not arise. I will discuss this in later sections.

satisfied, which requires "shortest movement" to observe economy in movement. In what follows, I will provide an analysis basically following but slightly modifying the minimalist framework.

3.3. Previous Analyses

3.3.1. S'(CP)-Deletion

Chomsky (1981) proposes S'(CP)-deletion to account for the phenomenon of English ECM constructions. The *believe*-type verbs trigger S'-deletion, and thus have an IP-complement. IP is not a barrier to government in the sense of Chomsky (1986b). Now the matrix verb is able to govern into the embedded subject, resulting in ECM.

(11) Mary believes [$_{IP}$ him to be intelligent]

As the example shows, the embedded subject is governed and assigned case by the matrix verb *believe*. In this analysis, government of the matrix verb is made possible by S'-deletion, not by raising the embedded subject to the matrix object position. The intuitive idea behind this is that *him* is the subject of the embedded clause, not the object of the matrix verb. As *him* is base-generated as the embedded subject, it satisfies the Projection Principle, illustrated in (12) below.

(12) Projection Principle (Chomsky 1981: 29)
Representations at each syntactic level (i.e., LF, and D- and S-structure) are projected from the lexicon, in that they observe the subcategorization properties of lexical items.

The principle predicts that *him* receives a theta-role from the embedded clause and this relation should be maintained at three syntactic levels. Thus, the embedded subject is prohibited to move to any position where other theta-role is assigned; otherwise, it violates

the Theta-Criterion. This immediately contradicts the so-called "Raising to Object" analysis, proposed by Postal (1974) and Postal and Pullum (1988).

3.3.2. Raising to Object

The ECM construction in (11) will be represented as (13) under the Raising to Object analysis in Postal (1974) and Postal and Pullum (1988).

(13) Mary believes him_i [t_i to be intelligent]

Once *him* raises to the matrix object position, its chain ends up with two theta-roles: a subject theta-role of the trace and an object theta-role of its head, violating the Theta-Criterion. As far as case is concerned, only the head *him* receives accusative case from *believe*.

Due to the fact that this analysis violates the Projection Principle and the Theta-Criterion, it was not, by and large, accepted by researchers as a legitimate ECM analysis. However, a variety of empirical evidence has been accumulated that the embedded subject actually moves to the matrix position. In this regard, the basic spirit of this analysis is being revived in the minimalist theory, in which the embedded subject is assumed to raise into the matrix clause in overt syntax for feature checking.

3.3.3. Control

In the Control Analysis by Koster (1978), the ECM construction in question will be represented as (14), in which *him* is base-generated in the matrix object position and controls the embedded subject.

(14) Mary believes him_i [e_i to be intelligent]

Since *him* does not form a chain with the empty embedded subject, they have a different theta-role. In this regard, a violation of the Theta-Criterion does not arise here. However, Koster (1978: 146) says that *him* in (14) is in a nonargument object position, which has no semantic relation with *believe*. This analysis is apparently incompatible with the Projection Principle.

3.3.4. Raising to CP-Spec

The analyses which adopt raising or base-generating the embedded subject out of the embedded clause are shown to be problematic due to a violation of the Projection Principle and/or the Theta-Criterion. Chomsky's S'-deletion analysis also fails to provide an adequate account of ECM into a finite CP in some languages in discussion, since in his analysis the embedded clause is always an IP, not a CP.

Masam (1985), investigating the ECM properties of some Polynesian languages such as Fijian and Niuean, proposes the movement analysis in which the embedded subject raises into the Spec of the embedded CP. She posits an extra Spec position above the CP, called "Spec 2," and hypothesizes that the position has the properties of both A and A'-positions. J-M. Yoon (1991: 23) argues that ECM-movement differs from normal A'-movement due to the fact that an ECMed DP can undergo further A-movement as in passive and raising constructions. The main motivation for positing an extra Spec position as the landing site of ECM-movement is to make it an escape hatch as an A-position for further A-movement.

J-M. Yoon (1991) analyzes Korean ECM constructions following the basic ideas of Masam (1985). She asserts that the embedded subject is assigned case by the matrix verb after it is raised to the Spec of CP from the Spec of IP. She argues that raising of the embedded subject to the Spec of CP enables the matrix verb to govern the raised embedded subject. That is, once the embedded subject raises to the Spec of CP, CP is not a barrier in the sense of Chomsky (1986b: 42).[2] Now the matrix verb is able to govern the raised embedded subject and thus assigns accusative case. As illustrated above, the embedded subject in Korean ECM constructions can take either nominative or accusative case. J-M. Yoon (1991) attempts to circumvent this recalcitrant situation by hypothesizing that assignment of nominative case is optional. She notes that the ECM subject has two ways of getting case. If the ECM subject is assigned nominative case by the embedded INFL, then accusative case cannot be assigned; if nominative case is not assigned, on the other hand, accusative case can be assigned. It should be noted that her analysis of optionality is not theoretically driven.

J. Lee's (1992) account of the phenomenon is more refined in that the ECM subject is fully motivated to move for Focalization.[3] He suggests that the embedded subject raises to the Spec of CP, forming an A'-chain. He accounts for the case alternation in question in terms of dual cases that an A'-chain can have (see Masam 1985). The ECM analysis of J-M. Yoon (1991) and J. Lee (1992) is based on nominative case assignment by INFL. This

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[2] Barrier (Chomsky 1986b)
In the configuration of ...α...[$_\gamma$...δ...β...], γ is a barrier for β if γ is (a projection, the immediate projection) of δ, a zero-level category distinct from β.

[3] J-S. Lee (1992) treats ECM as a process of focalization, in which the ECM subject carries a focal force with its accusative case assigned by the matrix verb. Schütze (1997), on the other hand, treats the accusative case marker *lul* appearing on the ECMed subject in Korean as a kind of 'focus' particle.

case assignment mechanism causes a problem in accounting for the case alternation phenomenon in Korean, since the ECM subject carries two structural cases: nominative and accusative. Under the default case system, which we are adopting throughout the dissertation, the case assignment mechanism in ECM constructions is straightforward. That is, nominative case is assigned to the embedded subject as a last resort, which will be discussed later.

3.4. ECM in the Minimalist Program

In the minimalist syntax (Chomsky 1993, 1995), ECM is expressed in terms of feature checking between an embedded subject DP and the matrix functional category *v*. In Chomsky (1995), the embedded subject DP in English ECM constructions is assumed to raise to the specifier position of the matrix *v* to have its features checked at LF. However, a wide variety of empirical evidence has been reported to show that the embedded subject DP moves in overt syntax. In this section, I will review some arguments for overt movement in ECM constructions.

3.4.1. Raising of ECM Subjects

3.4.1.1. Raising at LF

Under the traditional approaches we have illustrated, an ECM subject was assumed to remain in an embedded clause (IP or CP), receiving a theta-role from the embedded infinitive and case from the matrix verb. However, Chomsky (1993) and Chomsky and Lasnik (1991) assume that the ECM subject moves to the matrix AgroP at LF. First of all,

Lasnik and Saito (1991) provide evidence that the ECM subject undergoes raising to the matrix Spec of AgroP at LF.

(15) a. ?* The DA proved [that *the defendants* were guilty] during *each other's* trials.
b. ? The DA accused *the defendants* during *each other's* trials.
c. ? The DA proved [*the defendants* to be guilty] during *each other's* trials.

(16) a. ?* The DA proved [that *none of the defendants* were guilty] during *any* of the trials.
b. The DA accused *none of the defendants* during *any* of the trials.
c. ? The DA proved [*none of the defendants* to be guilty] during *any* of the trials.

The ungrammaticality of the (a) examples is attributed to the fact that a c-command relation is not established between the two elements in italic. In the (b) and (c) examples, on the other hand, such a relation holds between the two. To be precise, the object of a clause in the (b) examples and the subject of an embedded infinitival clause in the (c) examples c-command the adjuncts of the clause. In this regard, the subject of the embedded infinitival clause in the (c) examples patterns with the matrix object with respect to c-command, rather than the subject of the embedded tensed clause in the (a) examples. This indicates that the ECM subject may raise to a matrix position from which it can c-command the matrix adjuncts.

Branigan (1992: 63) provides another type of examples which more clearly show overt movement of the ECM subject. In (17), the antecedents should be in the matrix clause to be able to c-command their anaphors; otherwise, it violates Binding Condition A and B respectively.

(17) a. The DA proved *Bill and Mary* to be guilty during *each other's* interrogations.
b. The jury declared *every defendant* to be guilty during *his* final appearance.

The ill-formedness of the following examples will be captured if raising is obligatorily involved.

(18) a. Joan believes (that) *he* is a genius more fervently than *Bob's* mother does.
b. ?*Joan believes *him* even more fervently than *Bob's* mother does.
c. ?*Joan believes *him* to be a genius even more fervently than *Bob's* mother does. (Lasnik and Saito 1991)

(19) a. *?The king declared *him* to be an outlaw even more eagerly than *Marcel's* own squire had.
b. The king declared that *he* was an outlaw even more eagerly than *Marcel's* own squire had. (Branigan 1992)

We note that (18b,c) and (19a) are bad due to a violation of Binding Condition C. The ill-formedness of these examples comes from an illicit c-command relation between the binder and the bindee. The pronoun *him* illegitimately c-commands its antecedent. This c-command relation is possible only when it is in the matrix position.

Korean also provides a similar type of examples, which clearly show movement of the ECM subject. The following examples are from J-M. Yoon (1991: 59).[4]

(20) a. *John*-un [*ku*-ka ttokttokha-tako] sayngkakha-n-ta.
TOP he-N smart-COMP think-PRES-DEC
'*John* thinks that *he* is smart'

b. * *John*-un [*ku*-lul ttokttokha-tako] sayngkakha-n-ta.
he-A
'*John* thinks *him* to be smart'

In (20a), the pronoun *ku* 'he' is in the embedded clause, bound by its antecedent *John*, satisfying Binding Condition B. When the pronoun is ECMed, on the other hand, a violation of Binding Condition B results. This is due to its raising to the matrix position.

[4] J-M. Yoon (1991) analyzes Korean ECM constructions in terms of raising to Spec of CP. She suggests that the embedded subject in (20b) raises to the Spec of CP to be ECMed, and the governing category for the ECM subject is the matrix clause, resulting in a violation of Binding Condition B. Since ECM movement is vacuous, her analysis gives the same result of the violation of Binding Theory.

Miyagawa (1993a) explains ECM raising in terms of scope ambiguity between the universal quantifier *everyone* and negation. Let us consider the following examples from Miyagawa (1993a: 226).

(21) a. I expect *everyone* to *not* show up for the meeting.
b. I expect *everyone not* to show up for the meeting.
c. I expect that *everyone* will *not* show up for the meeting.

He explains that the (a) and (b) examples are not ambiguous no matter where the negation is placed: after *to* or before *to*. This is due to the fact that *everyone* is outside the scope of negation in the embedded clause. In contrast, the universal quantifier in the (c) example may be interpreted as being in the scope of negation, creating an ambiguous interpretation.

3.4.1.2. Raising before spell-out

Originally, Koizumi (1993) argues that object DPs in English raise in the overt syntax. Along this line, he argues that the ECM subject likewise raises overtly prior to S-structure. He presents the following examples to argue for overt movement of the ECM subject. First, the ECM subject may occur to the left of a matrix adverbial.

(22) a. I've believed *John* for a long time now [t_i to be a liar]
b. I have found *Bob* recently [t_i to be more morose]
(Kayne 1985, Postal 1974)
(23) a. ? I proved *him* conclusively [t_i to be a liar]
b. I suspect *him* strongly [t_i to be a liar] (Authier 1991)

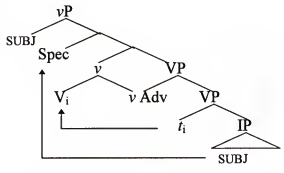
The hitherto-mentioned ECM examples in (15)-(20) are string vacuous with no elements intervened between the matrix verb and the ECM subject. In the examples of (22) and (23), on the other hand, matrix adverbs intervene between the two, which clearly shows

overt movement of the ECM subject. Looking at the ungrammaticality of (24) and (25), Koizumi (1993) claims that the landing site for the ECM subject should be higher than the matrix VP, which is Spec of AgroP in his analysis (and also Chomsky 1993) but Spec of *v* in Chomsky (1995), the higher V in the two-layered VP-shell for a simple transitive verb as in (26).

(24) a. * I've believed for a long time now *John* to be a liar.
b. * I have found recently *Bob* to be morose.

(25) a. * I proved conclusively *him* to be a liar.
b. * I suspect strongly *him* to be a liar.

(26)



The following Korean examples lend support to the claim that the ECM subject moves in the overt syntax. The ECM subject in (27b) and (28b) is shown to cross the adverbial adjoined to the matrix VP.

(27) a. na-nun [*Suni*-ka cengmalo yeppu-tako] mit-nun-ta.
I-TOP N really pretty-COMP believe-PRES-DEC
'I believe that Suni is really pretty'

b. na-nun *Suni*-lul cengmalo yeppu-tako mit-nun-ta.
I-TOP A really pretty-COMP believe-PRES-DEC
'I (really) believe Suni to be (really) pretty'

(28) a. ?* na-nun [*Suni*-ka olaystongan cinsilha-tako] mit-e wassta.
I-TOP N for a long time sincere-COMP have believed
'I've believed that Suni is sincere for a long time'

b. na-nun *Suni*-lul olaystongan [t_i cinsilha-tako] mit-e wassta.
I-TOP A for a long time sincere-COMP have believed
'I've believed Suni for a long time to be sincere'

(27a) yields only one reading in which the adverb *cengmalo* exclusively modifies the embedded predicate. In contrast, (27b) is ambiguous between two different readings. In one reading the adverb modifies the embedded predicate; in another reading it modifies the matrix predicate. What concerns us here is the second reading. If, in this reading, the adverb modifies the matrix predicate, it clearly shows overt raising of the ECM subject to the matrix position. In (28), the adverbial phrase can exclusively modify the matrix verb. The ungrammaticality of (28a) is due to the illicit modification of the adverbial to the embedded predicate. Once the embedded subject is ECMed, the sentence becomes grammatical. This indicates that the ECM subject is now in the matrix position and the adverbial modifies the matrix verb.

J-H. Yoon (1996: 118-9) also claims that ECM in Korean involves overt raising. In (29), the raised ECM subject can optionally have a lexical resumptive pronoun bound by it, yielding what he calls a 'copy-raising' configuration.

(29) John-un Bill_i-ul [ku_i-ka maywu yenglihata-ko] sayingkakha-n-ta.
TOP A he-N very clever-COMP think-PRES-DEC
'John thinks that Bill is very clever'

The overt presence of the lexical resumptive pronoun *ku* 'he' in the embedded clause ensures that its antecedent *Bill* is in the matrix.

Object DPs in Korean also show overt movement. It is a well-known fact that floated quantifiers indicate the position where the DP with which they are associated is base-

generated (Sportiche 1988, Miyagawa 1989). If this is correct, (30b) clearly shows overt movement of the object DP before Spell-Out.

(30) Korean (Park & Sohn 1993: 202)

a. haksaying$_i$-i sey-myeng-i maykcu-lul masi-ess-ta.
student-N three-CL-N beer-A drink-PAST-DEC
'Three students drank beer'

b. haksaying$_i$-i maykcu$_j$-lul sey-myeng-i t_j masi-ess-ta.
student-N beer-A three-CL-N drink-PAST-DEC
'same meaning as (30a)'

The subject is usually followed by the object in the canonical word order of Korean, as shown in (30a). It follows that the object *maykcu* 'beer' in (30b) has been raised beyond the quantifier phrase.

The following examples more clearly show that the object DP in an active transitive clause may move up beyond the base-position of the subject before Spell-Out.

(31) a. haksaying$_i$-i [$_{vP}$ ecey [$_{vP}$ sey-myeng-i maykcu-lul]] masi-ess-ta.
student-N yesterday three-CL-N beer-A drink-PAST-DEC
'Three students drank beer yesterday'

b. haksaying$_i$-i [$_{vP}$ ecey [$_{vP}$ maykcu$_j$-lul [$_{vP}$ sey-myeng-i t_j]]] masi-ess-ta.
student-N yesterday beer-A three-CL-N drink-PAST-DEC
'same meaning as (31a)'

Given that the adverb *ecey* 'yesterday' in Korean is adjoined to a verbal projection (O'Grady 1991), there is no place for the floated quantifiers in (30) and (31) other than a Spec of *v*, which is the base-position of SUBJ.[5] Since the subject appears at an outer Spec

[5] It is shown that the QPs in (30b) and (31b) associated with the subject DP remain in their base position, which is an outer Spec of *v*. It should also be noted that the QPs in question must always take a nominative case marker; otherwise, the sentence is bad. This indicates that they have a morphological case feature. Nevertheless, they have not raised into the Spec of T to check its case feature, whereas the subject DPs associated with them have raised into the position in question to check the strong D-feature of T. This fact confirms the basic assumption of this dissertation that nominative case features are obtained by "default" later at PF, which will be discussed in detail in later sections.

of *v* by Merge in Chomsky (1995), the object DP in (30b) and (31b) should raise first into an inner Spec of *v* to check its features and then shift beyond the QPs. This object shift phenomenon evidently shows overt object raising before Spell-Out.

Koizumi (1993) provides another piece of evidence for overt raising of ECM subjects from English particle verb constructions. As the examples in (32) show, the particle of a particle verb in the matrix clause normally cannot occur in the embedded clause (32b).

(32) a. They're trying to *make out* that John is a liar.
b. * They're trying to *make* that John *out* is a liar.
c. (?) They're trying to *make out* John to be a liar.
d. They're trying to *make* John *out* to be a liar. (Kayne 1985)

We note that in (32b) the particle *out* is placed in the embedded clause, resulting in ill-formedness. In (32c) raising of the ECM subject *John* is vacuous, whereas in (32d) it has apparently moved to the matrix due to its position to the left of the particle, lending support to the overt raising analysis.

As a last piece of evidence for overt raising, Koizumi (1993) provides Lobeck's (1990) and Saito and Murasugi's (1990) typology of functional categories in terms of agreement between a functional category and its specifier. Following them, Koizumi (p. 118) suggests that "only a constituent that is the complement of a functional head that agrees with its specifier may be deleted." Lobeck (1990) and Saito and Murasugi (1990) classify functional categories as follows:

(33) Functional Categories

	Agreeing	*Non-Agreeing*
I(=T)	I[+tense]	to
D	's	a(n), the
C	[+wh] COMP	that, whether, if

Their classification is exemplified in the following sentences, in which the (a) examples in (34) and (35) with agreeing heads are grammatical, whereas the (b) examples with non-agreeing heads are ungrammatical.

(34) a. We want to invite someone, but we don't know [$_{CP}$ who [$_{C'}$ [$_{C}$+wh] [$_{IP}$ e]]]
b. * We thought Sue wanted to be invited, but we weren't sure [$_{C'}$ [$_{C}$ whether/if] [$_{IP}$ e]] (Lobeck 1990)

(35) a. Lincoln's portrait didn't please me as much as [$_{DP}$ Wilson [$_{D}$'s][$_{NP}$ e]]
b. * I read about that person, and now, I wanted to see [$_{D'}$ [$_{D}$ the][$_{NP}$ e]] (Saito and Murasugi 1990)

Martin (1992), based on the typology in (33), makes a distinction in terms of deletion between control infinitives and raising infinitives.

(36) a. John wasn't sure he'd win the race, but he tried [PRO to [$_{VP}$ e]]
b. John convinced Bill to come to the party, and Sarah convinced Mary [PRO to [$_{VP}$ e]]

(37) a. ?* Mary claims to not like baseball, but she appears to [$_{VP}$ e]
b. * John considers Mary to be clever, and Mike considers Sally to [$_{VP}$ e]

Martin (1992) claims that *to* in (36) agrees with *PRO* in its specifier position, whereas *to* in (37) does not. I attribute the asymmetry between (36) and (37) to the fact that *she* in (37a) and *Sally* in (37b) have raised to the matrix position, leaving a trace. Now I suggest that agreement between *to* and a trace in its specifier does not hold in raising infinitives. The raising constructions in (37) will be represented as follows:

(38) a. ..., but *she* appears [$_{IP}$ t_i to [$_{VP}$ e]]
b. ..., and Mike considers *Sally* [$_{IP}$ t_i to [$_{VP}$ e]]

In (38a), *she* apparently raises to the matrix subject position. In (38b), however, *Sally* should be assumed to raise vacuously to the matrix object position so that its trace and *to* are not in agreement relation.

Ura (1993) also provides a piece of evidence for overt raising of the ECM subject. He compares *allege*-type verb constructions with ECM constructions. The *allege*-type verbs show interesting aspects with regard to infinitival complementation. That is, they do not allow an overt DP to occur in the subject position of an embedded infinitival clause.

(39) a. * He alleged Melvin to be a pimp.
b. * Bill wagered Mary to have won the race. (p. 263, from Postal 1974)

However, the ungrammaticality of these examples is saved by passivization or *wh*-movement. That is, if the embedded subject is passivized or *wh*-moved, they become grammatical, as shown in (40) and (41) respectively.

(40) a. Melvin was alleged to be a pimp. (Ura p. 264, from Postal 1974: 304)
b. Mary was wagered to have won the race. (Ura p. 264, from Pesetsky 1991)

(41) a. Who did they allege to be a pimp?
b. Who did Mary wager to have won the race? (Ura p. 263, from Postal 1974)

As a first approximation to an account of these constructions, Ura (1993: 272) assigns the following basic structure to the *allege*-type verb constructions.

(42) English *allege*-type verbs
$[_{AgroP}\ [_{VP}\ NP_{<matrix\ SUBJ>}\ allege\ [_{TP}\ NP_{<embedded\ SUBJ.>}$ to-infinitive]]]

The matrix verb takes TP as its infinitival complement. Under the minimalist theory (Chomsky 1993) adopting the VP-Internal Subject Hypothesis, the embedded subject NP is assumed to be base-generated within the embedded infinitival predicate. (42) is a configuration where the embedded subject NP has been raised to the Spec of TP to satisfy the EPP. It is assumed that the embedded subject moves to the Spec of AgroP to check its features at LF. Seemingly, there is nothing wrong with this reasoning.

The well-formed examples in (40) and (41) involve a further overt movement of the embedded subject to the Spec of the matrix AgrsP (passivization) and the Spec of CP (*wh*-movement), shown as follows:

(43) a. John was alleged to be a pimp.
[$_{AgrsP}$ John$_i$ ... [$_{AgroP}$ t'_i Agro [$_{VP}$ allege [$_{TP}$ t_i to be a pimp]]]]

b. Who did Mary allege to be a pimp?
[$_{CP}$ who$_i$ ... [$_{AgroP}$ t'_i Agro [$_{VP}$ allege [$_{TP}$ t_i to be a pimp]]]] (Ura 1993: 272)

The embedded subjects have moved to the Spec of their appropriate functional category, since they cannot make their features checked off in the subject position of the infinitival clause.

Returning to the ill-formed examples in (39), we should provide an appropriate account of their ill-formedness in comparison with the well-formed ones in (40) and (41). The LF derivation of (39a), for example, will be illustrated as in (44b) under the framework of Chomsky (1993).

(44) a. * He alleged Melvin to be a pimp.
b. [$_{AgrsP}$ he$_i$ ... [$_{AgroP}$ Melvin$_j$ allege$_k$-Agro [$_{VP}$ t_i t_k [$_{TP}$ t_j ... to be a pimp]]]]

Under the VP-Internal Subject Hypothesis, the embedded subject raises to the Spec of T (t_j) of the embedded clause in overt syntax to satisfy the EPP. At LF, it further raises to the Spec of Agro to make its features (case and phi-features) checked. There is nothing wrong with this LF derivation as far as feature checking is concerned. Then, why is it ungrammatical? Ura (1993: 272) provides an account of its ill-formedness by resorting to the Economy Principle, which, according to him, prohibits a partial movement in a single level. Following Chomsky (1993), Ura counts as one operation more than one step of movement involved in a chain if movement takes place in the same single level. In this

regard, movement of *Melvin* in (44b) counts as two operations because it takes place at two different levels; *Melvin* first moves into the Spec of the embedded T at PF and then into the Spec of Agro at LF. Movement of *John* in (43a), on the other hand, counts as a single operation because it takes place in a single level, that is, at PF; *John* first raises into the Spec of the embedded T, into the Spec of Agro, and then into the Spec of Agrs at PF. By definition, the derivation of (44) violates the Economy Principle, whereas that of (43) does not.

This analysis immediately drives our attention to ECM constructions, which allegedly have the same structure. Unlike the *allege*-type verbs, English ECM constructions have an overt subject DP of the infinitival complement clause, comparatively shown in (45).

(45) a. John believed Bill to have kissed Mary.
b. * John alleged Bill to have kissed Mary (Ura 1993: 274)

Chomsky (1993) suggests that the ECM subject raises to the Spec of Agro for feature checking at LF. If this is correct, the well-formed example of (45a) is puzzling, since it follows the same pattern of derivations as (44b), shown as follows:

(46) [$_{AgrsP}$ John$_i$ ... [$_{AgroP}$ Bill$_j$ believe$_k$-Agro [$_{VP}$ t_i t_k [$_{TP}$ t_j ... to have kissed Mary]]]]

Bill raises into the Spec of T in overt syntax to satisfy the EPP and stays there until LF. At LF, it raises into the Spec of Agro for case feature checking. It apparently violates the Economy Principle in the sense of Ura (1993), since a partial movement is involved.

Looking at the asymmetry between (45a) and (45b), Ura assumes that ECM construction (45a) undergoes a different derivation from (45b). That is, the ECM subject raises into the Spec of Agro for its feature checking in overt syntax, not at LF. By raising into the position overtly, it constitutes a single chain-formation, satisfying the Economy Prin-

ciple in the sense of Ura (1993). Ura attributes the contrast between (45a) and (45b) to a difference in lexical properties of the two verbs. That is, English ECM verbs, for some lexically idiosyncratic reason, require that the subject of their infinitival complement clause move to the Spec of the matrix Agro, by which they are selected, whereas *allege*-type verbs do not. Hence, the embedded subject of the *allege*-type verbs should not move at overt syntax by the Procrastinate Principle.

3.4.2. Verb Raising

3.4.2.1. Equidistance and Holmberg's generalization

An immediate question arises as to why the ECM subject raises to the Spec of the matrix Agro. In other words, what is the driving force of overt raising of the ECM subject? Given that the ECM subject behaves in the same way as regular objects do with respect to feature checking in Spec of Agro, we might refer to an analysis of object raising (or object shift) in the literature. As a first approximation, we might want to refer to Holmberg's generalization, illustrated as follows:

(47) Holmberg's Generalization
Object shift is possible only if the (main) verb raises out of the VP.

The generalization above is suggested by Holmberg (1986) to account for the phenomenon of object shift in Scandinavian languages. Here are some examples which show the effect (Bobaljik 1995: 118-9).

(48) a. Peter købte *den*$_i$ [$_{VP}$ ikke [$_{VP}$ t_i]]
Peter bought it not
'Peter didn't buy it' (Danish, Vikner 1991)

b. I går læste Peter *den*$_i$ [$_{VP}$ uden tvivl [$_{VP}$ ikke t_i]]
yesterday read Peter it without doubt not
'Peter doubtlessly read it yesterday' (Danish, Vikner 1991)

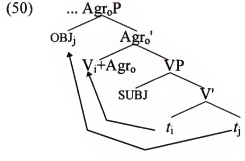
c. Á barnum drakk stúdentinn *bjórinn*$_i$ [$_{VP}$ stundum t_i]
In bar the drank student the beer sometimes
'In the bar, the student sometimes drank all the beer' (Icelandic, Bobaljik 1995)

(49) a. Hvorfor har Peter ikke købe *den*?
* Hvorfor har Peter *den*$_i$ ikke købe t_i ?
why has Peter it not bought it?

b. Det var godt [at Peter ikke købte *den*].
* Det var godt [at Peter *den*$_i$ ikke købte t_i]
it was good that Peter it not bought it (Danish, Vikner 1991)

In (48), object shift occurs over VP-adverbs when the verb raises to INFL or COMP. In (49), on the other hand, object shift has been blocked due to the fact that the main verb remains in VP. Holmberg's generalization was utilized to help Chomsky (1993) to build the notion of *equidistance*. Under the VP-Internal Subject Hypothesis in Chomsky (1993), it was a problem for the object to shift to the Spec of Agro across the subject or its trace in the VP-Spec, since it violates Chomsky's Shortest Movement (1993). On the face of this problem, Chomsky (1993) speculates that once the verb raises to Agro, the Spec of Agro and the Spec of V become *equidistant* from the object position, as delineated in (50).

(50)



Conversely, the object is within the same distance from the proposed positions, and thus it can raise to the Spec of Agro, skipping the specifier position of VP (SUBJ) without causing a Shortest Movement violation.

Bobaljik (1995) argues that Holmberg's generalization and Chomsky's (1993) *equidistance* account of verb raising are empirically untenable. In Icelandic, V is not allowed to raise to INFL when INFL is occupied by an auxiliary. In light of this, Bobaljik (1995) asserts that the applicability of Holmberg's generalization should find itself in clauses containing auxiliaries. Interestingly, the examples in (51) show overt object shift over an adverbial although verb raising is blocked due to the presence of an auxiliary in INFL (Bobaljik 1995: 122-3).

(51) a. Ons het *al die bier* [$_{VP}$ gister gedrink].
we have all the beer yesterday drunk
'We drank all the beer yesterday' (Afrikaans)

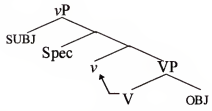
b. ...dat veel mensen [$_{AgroP}$ dat boek [$_{VP}$ gisteren gekocht] hebben].
that many people that book yesterday bought have
'... that many people bought that book yesterday' (Dutch, Zwart 1993)

c. Ich denke [$_{CP}$ daß viele Leute [$_{AgroP}$ die Zeitung [$_{VP}$ ganz gelesen]] haben].
I think that many people the article completely read have
'I think that many people have completely read the article' (German)

Bobaljik says that the objects in these examples overtly raise to the Spec of Agro even without verb raising involved. If this is the case, Holmberg's generalization does not hold for these languages, and Chomsky's equidistance account is also empirically untenable because the objects are taken to raise beyond its minimal checking domain, which should be confined to VP without verb raising to Agro.

Recently, Chomsky (1995: §10) discards the notion of *equidistance* in terms of domain-extending head movement of V to Agro. Adopting the 'bare theory' (Chomsky 1994), he suggests the following basic phrase structure allowing multiple Specs, as delineated in (52).

(52)



According to Chomsky (1995: §10), V overtly raises to the light verb *v* and *v* is never spelled out separate from V. SUBJ is base-generated in the outer Spec of *v* and OBJ raises into the inner Spec to check the features of *v*. Note that the landing site for OBJ and the base position of SUBJ are in the same minimal domain of *v* without involving verb raising. In this regard, Holmberg's generalization does not take any effect on the account of object raising in the multiple-Spec version of the minimalist program as Chomsky (1995: 358) remarks that "we have lost Holmberg's generalization and other effects of V-raising on extension of chains."

3.4.2.2. Verb Raising in English

Although object raising is not directly contingent on verb raising in Chomsky (1995: §10), V is independently argued to raise in order to establish the surface order of SVO in English; recall that it is argued in section 4.1 that the ECM subject overtly raises into the Spec of the matrix Agro (*v* in Chomsky 1995: §10), resulting in an SOV order. In what follows, I will briefly review some arguments for overt verb raising in English.

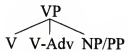
3.4.2.2.1. Pesetsky (1989). There have been several researchers who have delved into the possibility of overt verb raising in English (Pesetsky 1989; Johnson 1991; Larson 1988, 1990; Koizumi 1993). Adverbial placement plays a crucial role in identifying the relative position of a verb. First of all, adverbs are not allowed to occur between a verb and its DP complement, as observed in Chomsky (1981) and Stowell (1981). Consider the following examples, drawn from Koizumi (1993: 101).

(53) a. * The policeman arrested *quickly* the thief.
b. * Becky speaks *fluently* Chinese.
c. * John saw *frequently* the movie.

The examples above violate the Adjacency Condition on case assignment, proposed by Stowell (1981: 113). The Adjacency Condition, however, does not hold in the following examples, in which the verbs take a PP complement.

(54) a. Bynn spoke *loudly* with everyone.
b. Amber looked *carefully* at him.
c. Ben relies *frequently* on it. (Koizumi 1993: 102)

Despite the well-formedness of (54), the Projection Principle in Chomsky (1981) and the Binary Branching Condition in Kayne (1984) preclude the adverbs in (53)-(54) as an argument of the verb, dominated by VP. To be more specific, the adverbs should not be base-generated as a sister to the verbs along with the DP or PP arguments, shown as follows:

(55)


From the above considerations about the adverbial position, we have to provide an account of the well-formed examples of (54). Pesetsky (1989) suggests the following two plausible accounts of (54a), for example.

(56) a. PP movement account
Brynn [[spoke t_i] loudly] [with everyone]$_i$

b. Main verb movement account
Brynn spoke$_i$ [loudly [t_i with everyone]]

These accounts are based on a binary branching structure in which the verb and its PP complement, not the adverb, are both dominated by VP. Pesetsky (1989) argues that (56b) should be postulated by presenting some examples which show a different result of extraction out of a PP depending on whether the PP is extraposed or not.

(57) a. This is what Bill has now looked at __.
b. * This is what Bill has looked t_i now [at __]$_i$

The ungrammaticality of (57b) is attributed to the fact that *what* is extracted from the PP which is extraposed, violating the Condition on Extraction Domain (CED) of Huang (1982). (57b) is parallel to (58b) in the order of Adverb and PP; however, the CED effect is not observed in (58b). This indicates that the verb in (58b) has moved to the left of the adverb.

(58) a. This is what Bill has *recently* looked at __ .
b. This is what Bill has looked$_i$ *recently* t_i at __ .

By presenting the above examples, Pesetsky (1989) suggests that English main verb may move out of the VP to a higher head position, which he calls μ selecting VP. However, he precludes the possibility of main verb movement when a verb takes an DP complement, which is due to case assignment reasons.

Koizumi (1993) points out that Pesetsky's analysis cannot account for the following examples, in which objects as well as verbs are assumed to move past an adverb. If Pesetsky argues for verb movement only, the following sentences will be ruled out.

(59) a. Bob put all three books *intentionally* on the table.
b. Aaron gave the ring *secretly* to her. (Koizumi 1993: 105)

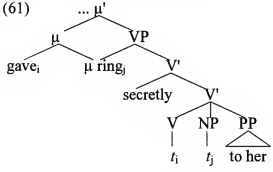
According to Pesetsky's (1989) analysis, the verbs have moved out of the VP due to their position to the left of the adverbs under the hypothesis that adverbs are VP-adjoined. What about the DP complements of the verbs? It is shown that the DP complements have also moved past the adverbs; otherwise, they are not adjacent to the verbs.

3.4.2.2.2. Johnson (1991). Johnson's (1991) analysis will correctly account for the movement phenomenon involved in (59). As a solution, he suggests the following three proposals (Johnson 1991: 584):

(60) a. Specifiers of XP precede X'.
b. Verbs always move out of the VP they head.
c. Accusative case-marked NPs move to Specifier of VP

With (60b,c), the object NPs as well as the verbs in the examples of (60) are assumed to move out of the VP. The verbs raise to adjoin to μ and the objects to the VP-Spec. In Johnson (1991), (59b), for example, will be represented as follows:

(61)



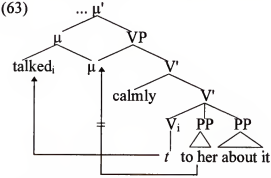
We note in the above structure that the two complements are generated as sisters to the verb without any hierarchy among them, VP-Spec is reserved empty for the object to move in and to get case from the verb adjoined to μ, and the adverb is adjoined to V'. As seen in (61), the adverb never intervenes between the verb and the object NP due to the

proposed movement of objects as well as verbs out of VP, satisfying the Adjacency Condition.

Koizumi (1993) points out three problems concerning Johnson's analysis. First, his analysis cannot account for an example involving PP complement movement. Second, his analysis is problematic because there is no hierarchy among the complements of a verb. Third, adverbs should not adjoin to V', which has no semantic contents. Consider the following examples.

(62) a. Chuck talked calmly to her about it.
b. Chuck talked to her calmly about it.

(63)



Johnson's analysis will correctly explain the derivation of (62a) by adjoining the verb to μ, as illustrated in (63). (62b), however, will remain unexplained under his analysis, since the PP complement is not allowed to raise. Furthermore, the asymmetry between (64a) and (64b) cannot be captured under Johnson's flat structure of complements of a verb.

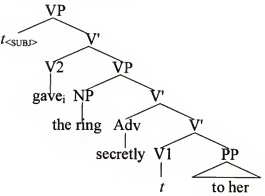
(64) a. Joni talked to Marty$_i$ about himself$_i$.
b. * Joni talked to himself$_i$ about Marty$_i$. (Koizumi 1993: 107)

Koizumi (1993) asserts that there must be a hierarchy between the PP headed by *to* and the PP headed by *about* to explain the binding fact illustrated in (64). In this regard, he argues that the former should be structurally higher than the latter.

3.4.2.2.3. Larson (1988, 1990). Koizumi (1993) finally reviews Larson's (1988, 1990) VP-shell analysis. Following the Larsonian VP-shell analysis, Koizumi assigns the structure of (65b) to (59b), repeated here as (65a).

(65) a. Aaron gave the ring secretly to her.

b.



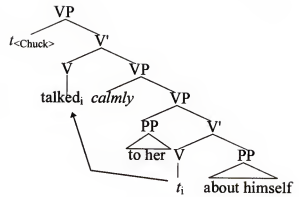
As the verb raises to V2, it is adjacent to the object, satisfying the Adjacency Condition. The adverb, base-generated at the V'-adjoined position, does not intervene between the verb and the object. Another point about the VP-shell analysis is that it can capture hierarchical asymmetries among complements. Koizumi (1993: 108) points out two problems with Larson's analysis. First, the VP-shell structure allowing an adverb to adjoin to V' wrongly rules in the following ungrammatical sentence (66a), assigning to it either the structure (66b) or (66c).

(66) a. * Aaron gave Joni secretly the ring.
b. Aaron gave$_v$ [$_{VP}$ Joni$_i$ [$_{V'}$ [$_{V'}$ secretly [$_{V'}$ t_v t_i]] the ring]]
c. Aaron gave$_v$ [$_{VP}$ Joni$_i$ [$_{V'}$ secretly [$_{V'}$ [$_{V'}$ t_v t_i]] the ring]] (Koizumi 1993: 108)

Second, the basic structure of the VP-shell analysis wrongly rules out the grammatical sentence (62a), in which the adverb is adjoined to VP.

(67) a. Chuck talked calmly to her about it. (Koizumi 1993: 111)

b.

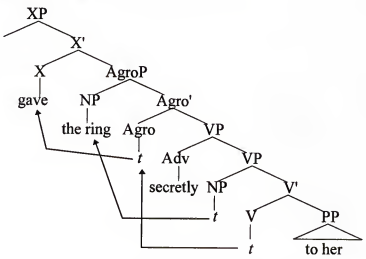


Apparently, the adverb adjoins to VP, intervening between the verb and the PP complement. The sentence is perfect, but it is wrongly ruled out by the analysis in question.

3.4.2.2.4. Koizumi (1993). Building on the insights of verb movement from Pesetsky (1989), of object as well as verb movement from Johnson (1991), and of a hierarchical complement structure from Larson (1988, 1990), Koizumi (1993) adds an extra condition that adverbs should adjoin to VP and suggests (68b) as the underlying structure of (68a).

(68) a. Aaron gave the ring secretly to her. (=(59b))

b.



Following Johnson (1991) and Larson (1988, 1990), Koizumi argues that in English object NPs as well as verbs overtly raise to the Spec of AgroP and Agro respectively. By

limiting adverbs to a VP-adjoined position, he accounts for the ill-formedness of the following examples.

(69) a. * Aaron gave$_v$ [$_{AgroP}$ *secretly* [$_{AgroP}$ the ring$_i$ $t_{v\ <gave\text{-}Agro>}$ [$_{VP}$ t_v t_i to her]]]
b. * Will [$_{AgrsP}$ *tomorrow* [$_{AgrsP}$ Sue speak French]]?
c. * It's possible [$_{CP}$ for [$_{AgrsP}$ *tomorrow* [$_{AgrsP}$ Sue to speak French]]]

The examples above are all ruled out due to the fact that the adverbs are adjoined to AgroP (69a) and AgrsP (69b-c), which, according to Koizumi, fail to license adverbs due to the lack of lexical semantic content.

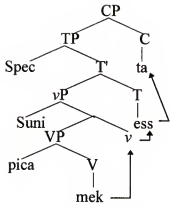
3.4.2.3. Verb raising in Korean

3.4.2.3.1. Negation and verb movement. In Pollock (1989) and Chomsky (1989), functional categories such as Agr and Tense are treated as the syntactic head of a maximal projection. In their analyses, inflectional morphology is expressed in terms of verb movement, i.e., X^0-movement in the syntax. I will likewise treat each inflectional affix in Korean as the syntactic head of a maximal projection and illustrate verbal morphology in Korean in terms of verb movement (cf. J-Y. Yoon 1990; J-M. Yoon 1991; Y. Park 1991; K. Park 1992; K. Lee 1997).

Verb raising of affirmative sentences in Korean is quite straightforward. I will assign the structure of (70b) to (70a) based on the phrase structure of Chomsky (1995). As the structure (70b) shows, the verb first raises to T, forming an amalgamated form *mek-ess*, and then to C, forming a larger amalgamated form *mek-ess-ta*.

(70) a. Suni-ka pica-lul mek-ess-ta.
N pizza-A eat-PAST-DEC
'Suni ate pizza'

b.



Example (70a) can have two different forms of negation. (71a) is called MV (main verb)-negation, in which the negator *an(i)* precedes the main verb, whereas (71b) is called *HA*-negation, in which a dummy auxiliary *ha* 'do' is inserted to host stranded affixes such as *ess* and *ta*.[6]

(71) a. Suni-ka pica-lul *an* mek-ess-ta.
N pizza-A NEG eat-PAST-DEC
'Suni did not eat pizza'

b. Suni-ka pica-lul mek-ci *ani* ha-ess-ta.
N pizza-A eat-NML NEG do-PAST-DEC
'Suni did not eat pizza'

The two examples above roughly have the same meaning. When quantifiers are involved in these examples, however, they exhibit a different behavior in scope. It is suggested in the literature that in MV-negation a quantifier phrase in subject or object position takes wide scope over negation (C. Cho 1975; I. Lee 1979; Ahn 1990; M. Park 1994), whereas in *HA*-negation it takes scope below the negative marker attached to the auxiliary verb *ha* 'do' (S. Song 1977; J-M. Yoon 1990; M. Park 1994). Two types of examples are in order.

[6] MV-negation is also called "short-form" negation, whereas *HA*-negation is also called "long-form" negation. I employ MV- and *HA*-negation following M. Park (1994).

(72) MV-negation

a. *motun* sensayngnim-tul-i John-ul *an* manna-ass-ta.
all teacher-PL-N A NEG meet-PAST-DEC
'All of the teachers didn't meet John' (all > not)

b. John-i *motun* haksayng-tul-ul *an* manna-ass-ta.
N all student-PL-A NEG meet-PAST-DEC
'All the students, John didn't meet' (all > not)

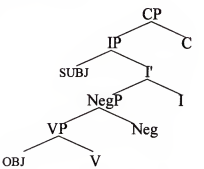
(73) *HA*-negation

a. *motun* sensayngnim-tul-i John-ul manna-ci *ani* ha-ess-ta.
all teacher-PL-N A meet-NML NEG do-PAST-DEC
'Not all of the teachers met John' (all < not)

b. John-i *motun* haksayng-tul-ul manna-ci *ani* ha-ess-ta.
N all student-PL-A meet-NML NEG do-PAST-DEC
'John didn't meet all the students' (all < not) (M. Park 1994: 15)

Given that scope is determined by a c-command relation at overt syntax (Huang 1982, Hoji 1985, Ahn 1990), the asymmetry in scope between (72) and (73) should be captured within syntactic structure. As a first approximation, I will introduce J.-Y. Yoon's (1990) analysis. He suggests the following structure, in which the negative marker *an(i)* is postulated as head of NegP:

(74)



J.-Y. Yoon (1990) argues that the verb raises optionally in Korean. That is, if the verb raises, it moves over the negative marker and amalgamates with inflectional elements such as I and C, resulting in MV-negation; in this case the dummy auxiliary *ha* 'do' is not inserted. To this amalgamated form is the negative marker cliticized and prefixed. If the

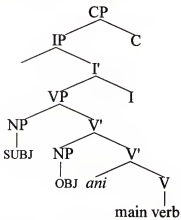
verb does not raise, on the other hand, inflectional elements are stranded. Then, *ha* is called upon to pick up the stranded elements and raise up to C, resulting in *HA*-negation. In either case, the negative marker, as J.-Y. Yoon claims, is in the hierarchically same position. Hence, the structure (74) cannot capture the asymmetry of scope illustrated in (72)-(73).

J.-M. Yoon (1990) also argues for verb movement in Korean. Treating MV-negation as a "lexical" process, she asserts that it undergoes verb movement in the same manner as affirmative sentences, illustrated in (70b). She claims that only *HA*-negation is formed in the syntax by virtue of *ha*-insertion. Her analysis also fails to capture the asymmetry of scope under discussion, since the negative marker raises along with the verb and inflectional elements up to C. In J.-Y. Yoon (1990) and J.-M. Yoon's (1990) analyses, the negative marker *an(i)*, by raising, is always in a higher position, that is, C, than a subject and object NP. In this regard, it always has wide scope over the subject and object QP.

In contrast to the analyses discussed above, M. Park (1994) argues against verb movement in Korean. He claims that inflectional morphemes such as I(T) and C are not independent syntactic heads. This claim leads him to propose that Korean verbal morphology is achieved by phrasal affixation, not by verb movement. He suggests the underlying structures in (75) for MV-negation and *HA*-negation. For both types of negation, M. Park treats *an(i)* as a negative adverbial licensed in the lexicon, which is cliticized and prefixed to the auxiliary *ha* as well as a main verb. These structures well capture scope facts involved in (72) and (73), since the subject and the object are out of the c-command

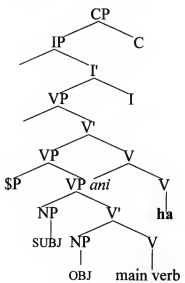
domain of the negator in (75a), whereas they are within the c-command domain of the negator in (75b), as desired.

(75) a. MV-negation



$P = scrambled phrase
frequency adverbial
purpose/reason adverbial

b. *HA*-negation

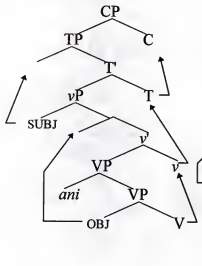


Assuming no verb movement, M. Park, following E. Lee (1992), argues that the subject should stay in VP-Spec position at overt syntax; if the subject raises to IP-Spec for a case-theoretic reason in (75b), it will take wide scope over the negator.

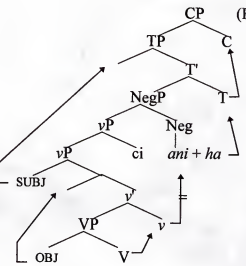
The non-verb-movement analysis is not adopted for our discussion, since it is not compatible with the basic assumption of this dissertation that SUBJ and OBJ in Korean raise overtly for feature checking. Along this line, I propose that the verb in Korean also raises overtly up to the complementizer position. Accordingly, I suggest the underlying structures of verb raising in Korean, as shown in (76), within the minimalist framework in Chomsky (1995). I treat the negator *an(i)* as a negative adverbial in MV-negation (76a)

following K. Park (1992) and M. Park (1994), but as an inflectional syntactic head in *HA*-negation (76b) following J-Y. Yoon (1990) and J-M. Yoon (1990).[7]

(76) a. MV-negation



b. *HA*-negation (Pre-Spell-Out)



In (76a), the negative adverbial is adjoined to VP.[8] As SUBJ and OBJ raise overtly to the Spec of their appropriate functional head, they always take wide scope over the negator. In (76b), I propose that the nominalizer *ci*, selected by Neg, blocks main verb movement to the higher inflectional elements. The following example shows this effect.

(77) Eunbee-ka pica-lul mek-(*ess)-*ci* *ani* ha-ess-ta.
N pizza-A eat-(*PAST)-NML NEG do-PAST-DEC
'Eunbee didn't eat pizza'

The illegitimacy of the past morpheme on the main verb stem indicates that the main verb

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[7] The plural marker *tul* in Korean can optionally attach to adverbs to show agreement with subjects. The negator *an(i)* of MV-negation shows this effect, whereas that of *HA*-negation does not. This constitutes a piece of evidence for the argument that the former is an adverbial.

(i) a. ai-tul-i pap-ul *ani*-tul mek-ess-ta.
child-PL-N food-A not-PL eat-PAST-DEC
'Children didn't eat food'

b. ?* ai-tul-i pap-ul mek-ci *ani*-tul ha-ess-ta.
child-PL-N food-A eat-NML not-PL do-PAST-DEC
'Children didn't eat food'

[8] The negation marker *an(i)* in (76a) is regarded as parallel to the English adverbial *never*, which is adjoined to VP and does not trigger *do*-support.

has not raised to T to check its strong V-feature. Now the dummy *ha* 'do' is inserted to salvage the stranded inflectional affixes and raise to T and C.[9] Since the negator in (76b) has raised up to C along with *ha*, it takes wide scope over the raised SUBJ and OBJ before Spell-Out.

3.4.2.3.2. Compound verbs. We can find another piece of evidence for overt verb movement from Korean V-V compounds (KVVC). In S. Kang (1997), I proposed that the KVVCs are formed in overt syntax. Consider the following examples.

(78) a. kkoch-i mal-a cuk-ess-ta.
flower-N dry-INF die-PAST-DEC
'The flower withered to death'

b. kkoch-i (*cuksi*) mal-a (**cuksi*) cuk-ess-ta.
immediately
'The flower dried and died immediately'

(78a) is an unaccusative verb compound consisting of the two unaccusative verbs 'dry' and 'die'. The verb compound in (78a) is characterized by the fact that the two unaccusative verbs are barely separated by any element as shown in (78b), conforming to the "inseparability" criterion for compoundhood suggested by Lieber (1992) and Miller (1993).[10,11] If the proposed analysis that KVVCs are formed in overt syntax is correct, the

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[9] The argumentation that *ci* is a nominalizer is evidenced by the fact that the accusative case marker *lul* can attach to it, shown as follows:

(i) ai-tul-i pap-ul mek-*ci*-lul *ani* ha-ess-ta.
child-PL-N food-A eat-NML-A not do-PAST-DEC
'Children didn't eat food'

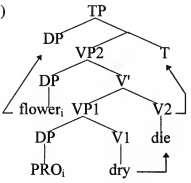
J-M. Yoon (1990) alternatively analyzes *ci* as a complementizer which takes a nonfinite VP as complement.

[10] According to Lieber (1992), '*a black *heavy* board' violates the "inseparability" criterion of compounds, where the adjectival modifier *heavy* is inserted between the two parts of the compound.

[11] Miller (1995: class note) also points out that parts of compounds cannot be modified by any elements. The following are relevant examples he suggests:

(i) a. [[plant-eating] animal [eater-training]]
b. * [plant-eating] [animal-eater-training]

first verb *mal* 'dry' should be taken to raise overtly to the second verb *cuk* 'die' due to their inseparability by the adverbial *cuksi* 'immediately'.[12] The formation of the compound (78a) is illustrated as follows:

(79) 

(Pre-Spell-Out)

In S. Kang (1997), I attributed verb movement involved in (79) to the strong V-feature of T in Korean; that is, V1 and V2 are forced to raise to T to check its strong V-feature.

Koizumi (1995: 181-3) accounts for Japanese complex verbs in an analogous way. He argues that verbs in Japanese overtly raise up to C and thus that Japanese complex verbs are formed by overtly raising the lower verb under head-to-head movement.

(80) *Raising (Nonstative)*
a. John-ga ringo-o 2-tu to Mary-ga banana-o 3-bon *tabe-kake*-ta (koto)
N apple-A 2-CL and N A 3-CL eat-be about to-PAST
Lit. '[[John two apples] and [Mary three bananas]] was about to eat'
(John was about to eat two apples, and Mary three bananas.)

(ib) is ill-formed if we get a reading where *plant-eating* modifies *animal*, the part of the whole compound *animal-eater-training*.

[12] Suh (1996: 631-2) also treats the combination of V1 and V2 as a process of compounding. Due to a tight relation between the two verbs, they resist an insertion of an adverbial element. Consider the following examples he gives.

(i) a. ai-ka congi-lul ccic-e peli-ess-ta.
child-N paper-A tear-VA throw away-PAST-DEC
'A child threw away the paper torn into pieces'
b. ? ai-ka congi-lul ccic-e *ellun* peli-ess-ta.
quickly
'A child tore the paper *and* quickly threw it away'

He points out that if an adverbial element is inserted between the two verbs as in (ib), they do not form a compound any longer. Rather, (ib) entails a reading of conjunction as the English translation shows.

b. *tabe-kake*-ta no-wa John-ga ringo-o 2-tu da.
eat-be about to-PAST NML-TOP N apple-A 2-CL be
Lit. 'It is [John two apples] that was about to eat'
(John was about eat two apples.)

(81) *Control (Nonstative)*

a. John-ga ringo-o 2-tu to Mary-ga banana-o 3-bon *tabe-wasure*-ta (koto)
N apple-A 2-CL and N A 3-CL eat-forget-PAST
Lit. '[[John two apples] and [Mary three bananas]] forgot to eat'
(John forgot to eat two apples, and Mary three bananas.)

b. *tabe-wasure*-ta no-wa John-ga ringo-o 2-tu da
eat-forget-PAST NML-TOP N apple-A 2-CL be
Lit. 'It is [John two apples] that forgot to eat'
(John forgot to eat two apples.)

(82) *Control (Stative)*

a. John-ga ringo-o/ga 2-tu to Mary-ga banana-o/ga 3-bon *tabe-rare*-ru
N apple-A/N 2-CL and N A/N 3-CL eat-can-PRES
Lit. '[[John two apples] and [Mary three bananas]] can eat'
(John can eat two apples, and Mary three bananas.)

b. *tabe-rare*-ru no-wa John-ga ringo-o/ga 2-tu da
eat-can-PRES NML-TOP N apple-A/N 2-CL be
Lit. 'It is [John two apples] that can eat'
(John can eat two apples.)

Each of the examples above contains a complex predicate consisting of two simple predicates in italic. The (a) examples are in coordination and they are, akin to Koizumi (1995: 170), underlyingly schematized as in (83).

(83) [... [... OBJ $t1_V$] $t2_V$] and [... [... OBJ $t1_V$] $t2_V$] V1-V2-Tense

Koizumi sees (83) as an instance of overt verb raising, where V1 and V2 are assumed to have raised out of each conjunct. The (b) examples show clefting of the subject and the direct object. According to Koizumi (p. 167), the schematic structure of the (b) examples before clefting might be represented as in (84).

(84) [$_{IP}$ SUBJ [... OBJ $t1_V$] $t2_V$] V1-V2-Tense

In (84), V1 and V2 are shown to raise to T out of IP. It is the "remnant" IP that is clefted, which contains the trace of the two verbs.

It is important to note that clefting should operate on a syntactic constituent (Koizumi 1995). This precludes the possibility of clefting SUBJ and OBJ only, leaving two Vs stranded, since SUBJ and OBJ do not form a syntactic constituent without V. Hence, it is assumed that V1 and V2 raise out of IP first, and then IP with the trace of V, as a syntactic constituent, is clefted as shown in the (b) examples. Accordingly, Koizumi (1995) takes the examples of (80)-(82) to be a compelling piece of evidence for overt verb raising in Japanese.

3.4.3. Feature Checking in ECM Constructions

So far, we have established that the ECM subject in English and Korean raises overtly before Spell-Out. Corresponding to the basic theory-internal assumption that object raising is contingent upon verb raising (Holmberg 1986; Chomsky 1993), overt verb-raising analyses in English have been posited (Pesetsky 1989; Johnson 1991; Larson 1988, 1990; Koizumi 1993, 1995). Given that any syntactic movement is motivated by feature checking in the minimalist theory, the ECM subject and the main verb normally raise to their appropriate functional head for feature checking.

Our concern in this subsection is what happens if the ECM subject carries no case feature as in Korean. It is natural that a different perspective of case assignment brings a different consequence for feature checking. In what follows, I will examine two different

approaches to feature checking of the ECM subject in Korean, and illustrate their theoretical implications within the minimalist syntax.

3.4.3.1. Double case analyses

3.4.3.1.1. J. Lee (1992). As illustrated in section 2, the ECM subject of a finite embedded clause in Korean shows case alternation between nominative and accusative. The case alternation phenomenon raises a host of interesting issues concerning case assignment to a subject nominal. Certainly, this phenomenon will impose a severe burden of proof on those who argue for nominative case assignment by INFL. As a way out of this impasse, they reach the conclusion that ECM in Korean, unlike in English, is optional in that it is not carried out for case-theoretic reasons (J-M. Yoon 1990, J. Lee 1992).

An intriguing issue closely related to case alternation is why and how the subject of a finite embedded clause is ECMed, while it can get case from a tensed INFL. First of all, J. Lee (1992) maintains that the ECM subject can bear dual cases, that is, accusative and nominative, as shown in the following example.

(85) Eunmo-nun [$_{CP}$ Eunbee$_i$-*lul* [$_{IP}$ t_i yeppu-ess-tako] mit-nun-ta.
TOP A pretty-PAST-COMP believe-PRES-DEC
'Eunmo believes that Eunbee was pretty'

He provides an account of Korean ECM constructions in terms of raising to the Spec of CP. This account suggests that the ECM subject *Eunbee* raises into the Spec of the embedded CP to receive accusative case from the matrix verb 'believe'. He also claims that nominative case in Korean is assigned by INFL. Under this case system, the ECM subject *Eunbee* evidently receives nominative case from INFL of the finite embedded

clause. It immediately follows that the resultant A'-chain bears dual cases, nominative case from the embedded INFL and accusative one from 'believe'.

3.4.3.1.2. J-H. Yoon (1996). Similarly, J-H. Yoon (1996) accounts for the case alternation phenomenon in terms of multiple case marking. He begins with documenting numerous examples of case stacking in Korean, which is a unique phenomenon found in several other languages. To illustrate, he introduces the following examples of case stacking.

(86) Korean (Gerdts and Youn 1989)
a. na-*eykey*-(man)-*i* paym-i mwusepta.
I-D-(only)-N snake-N fearful

b. na-*eykey* paym-i mwusepta.
I-D snake-N fearful

c. nay-*ka* paym-i mwusepta.
I-N snake-N fearful
'(Only) I am afraid of snakes'

(87) a. i kongcang-*eyse*-(man)-*i* pwul-i nassta.
this factory-LOC-(only)-N fire-N broke out

b. i kongcang-*eyse* pwul-i nassta.
this factory-LOC fire-N broke out

c. i kongcang-i pwul-i nassta.
this factory-N fire-N broke out
'It is (only) in this factory that a fire broke out'

(88) Cuzco Quechua (Lefebvre and Muysken 1988)
a. pi-*qpa-ta*-n$_i$ muna-nki [t_i platanu ranti-mu-na-n-ta]
who-G-A-AF want-2 bananas buy-NML-3-A
'Who do you want to buy bananas?'

b. Mariya Xwancha-*q-ta*-n$_i$ muna-n [t_i platanu ranti-mu-na-n-ta]
Maria Juan-G-A-AF want-3 bananas buy-NML-3-A
'Maria wants Juan to buy bananas'

Case stacking occurs in the above examples: dative-nominative case in (86a), locative-

nominative case in (87a), and genitive-accusative case in (88). Case stacking in (88), in particular, takes place in a somewhat different environment from (86) and (87). Citing Lefebvre and Muysken (1982, 1988), and Muysken (1989), J-H. Yoon (1996) illustrates that when A- or A'-movement takes place out of an embedded (nominalized) complement, the lower subject which is marked genitive in its base position must be case-stacked by accusative after raising, resulting in genitive-accusative case arrangement. A relevant aspect is that extraction out of nominalized complements is substantially blocked without such case stacking.

Extending the empirical domain of case stacking to finite ECM constructions in Korean, J-H. Yoon (1996) raises a possibility that the chain of the ECM subject might likewise possess more than one case although only one (morphological) case is realized on the surface. Arguing for the overt raising analysis in ECM, he suggests that the ECM subject in the following cross-linguistic examples can bear multiple cases despite the fact that it displays only one overt (morphological) case.

(89) Korean (J-H. Yoon 1996)

a. Chelsu-nun Yenghi$_i$-*lul* [t_i chencay-i-ess-tako] mit-nun-ta.
TOP A genius-COP-PAST-COMP believe-PRES-DEC
Chelsu believes that Yenghi was a genius'

b. Chelsu-nun [Yenghi-*ka* chencay-i-ess-tako] mit-nun-ta.
TOP N genius-COP-PAST-DEC believe-PRES-DEC
'same meaning as (89a)'

(90) Imbabura Quechua (Cole and Hermon 1981)

a. Maria-ca Francisco$_i$-*ta* yacha-n [t_i cay-pi ca-j-ta]
TOP A knows-3 this-in be-PRES.NML-A
'Maria knows that Francisco is here'

b. Maria-ca yacha-n [Francisco cay-pi ca-j-ta]
TOP knows-3 Francisco(N) this-in be-PRES.NML-A
'same meaning as (90a)'

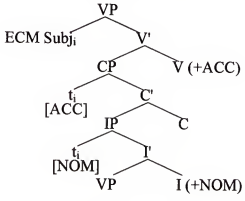
(91) Niuean (Seiter 1980)

a. To nakai toak e au [*e* pusi$_i$] [ke kai t_i e ika]
FUT not let ERG I ABS cat SUB-COMP eat ABS fish
'I won't let the cat eat the fish'

b. To nakai toak e au [ke kai [he pusi] e ika]
FUT not let ERG I SUB-COMP eat erg cat ABS fish
'same meaning as (91a)'

As illustrated in section 2 in detail, in these languages ECM is possible into a finite CP, and ECM is treated as optional due to case alternation between nominative/ergative and accusative/absolutive. Due to the finiteness of the embedded clauses, J-H. Yoon (1996) speculates that the ECM subject in the (a) examples bears two cases, one from the embedded INFL and the other from the matrix verb, as delineated in (92).

(92)



(H-J. Yoon 1996: 120)

Along the same line of the Raising to CP-Spec analysis (Lefebvre and Muysken 1982; Masam 1985; J-M. Yoon 1991; J. Lee 1992), J-H. Yoon argues that ACC is assigned to the Spec of CP by the matrix verb. According to this derivation, the ECM subject first raises into the Spec of CP to get ACC case and then further raises into the Spec of VP in the matrix.

An immediate question may arise with regard to the present analysis. If the ECM subject in (89)-(91) bears two cases, why is only one case morphologically realized on it?

The answer to this question is in order. Adopting the standard assumption that in Korean NOM, ACC, and GEN cases are structural cases and the other cases such as DAT and ABL are inherent cases (Gerdts and Youn (1989), J-H. Yoon (1996: 129) proposes that stacking among structural cases is impossible. An ensuing question to this proposal is why accusative case, not nominative case, is always realized morphologically on the ECM subject. To answer this question, he makes a generalization that the structural case that is assigned on a later cycle has precedence over the one assigned on an earlier one.

3.4.3.1.3. Schütze (1997). Schütze (1997) takes the same line of analysis of ECM constructions in Icelandic. It is shown in (93) that Accord obtains between the embedded INFL and the ECM subject, which, however, surfaces with accusative case.[13]

(93) Icelandic (Taraldsen 1995: 323-4)
Við töldum hana/*hún elska Harald/*Haraldur.
we(N) believed(1PL) her(A/*N) to-love Harold(A/*N)
'We believed her to love Harold'

Given that Accord is possible between nonfinite INFL and a DP in Icelandic, he asserts that the ECM subject *hana* bears two case features: a nominative feature from Accord and an accusative feature from the matrix verb. However, the ECM subject bearing both a nominative and an accusative feature is always spelled out as ACC, which is parallel to the examples in (89-91). Schütze tackles this case conflict by adopting a hierarchy of case in which ACC takes precedence over NOM, which is attested in many treatments of case across languages. As for the feature checking of the ECM subject that carries two case

[13] Originally suggested by Pesetsky, the term Accord in Schütze (1997) roughly refers to a syntactic relationship between a pair of elements that has case and/or agreement as its reflection.

features, he assumes that the nominative feature is checked within the embedded clause and the accusative feature in the matrix clause.

3.4.3.1.4. Some critical comments. So far, we have briefly reviewed the analyses which postulate that the ECM subject in the proposed languages has two different case features. It should be noted that their analyses are mainly motivated by theoretical considerations. Their claim might be tenable under their case system in which nominative case is (obligatorily) assigned by its case assigner such as INFL for Korean or Accord for Icelandic. Some comments on their proposed analyses are in order.

First, J. Lee's (1992) Raising-to-CP-Spec account is well-designed to conform to basic tenets of GB syntax. As the ECM subject is base-generated in the embedded subject position, it satisfies the Projection Principle (Chomsky 1981). And as its movement domain is confined within the embedded clause, CP-Spec, it does not violate the Theta-Criterion (Chomsky 1981); if it moves to the matrix object position, its resultant A-chain bears two theta-roles, violating the Theta-Criterion. Contrary to this movement within the embedded clause, however, our abundant empirical data examined across languages exhibit clear instances of overt raising of the ECM subject to the matrix clause, as illustrated in section 4.1.2. Moreover, his argument for CP-Spec as a landing site of the ECM subject will find difficulties in explaining its further movement by passivization. This movement will be in violation of the Illicit Movement Condition, which rules out the Chain of an A-A'-A configuration, unless CP-Spec is considered as an A-position. We will turn to the aspects of further ECM raising shortly.

Second, J-H. Yoon's (1996) analysis is more compatible with the basic tenet of the present dissertation in that in his analysis the ECM subject is argued to raise overtly to the matrix position. When we consider VP-Spec that he posits as its final landing site in (92), however, we may raise an imminent question as to why it should move to the proposed position. Evidently, it does not move to the position in question for a case reason, since it gets accusative case in CP-Spec. His analysis fails to answer this fundamental question arising in overt ECM raising. Another point to be made with regard to three aforementioned analyses including Schütze (1997) is that there is no physical evidence that the ECM subject carries two (or multiple) morphological cases on the surface. In this regard, their analyses are stipulative in nature and result from their untenable assumption that nominative case is assigned by INFL, which was, however, fully attested not to be responsible for case assignment in Korean in the previous chapter.

3.4.3.2. Default case analysis

It is naturally expected that the default case analysis depicts a picture of feature checking in ECM constructions from a different perspective, since it has a different starting point in case assignment from the previous analyses. It starts from the basic proposition that nominative case is assigned by default as a last resort. Hence, a stipulative hypothesis is not posited in the present analysis that the ECM subject in the proposed languages bears two morphological cases. It follows that the present analysis assumes that the two sentences of the paradigm in (94) undergo a different derivation in terms of feature checking.

(94) a. Eunmo-nun [$_{CP}$ Eunbee-*ka* yeppu-tako] mitnunta.
TOP N pretty-COMP believe
'Eunmo believes that Eunbee is pretty'

b. Eunmo-nun Eunbee$_i$-*lul* [$_{CP}$ t_i yeppu-tako] mitnunta.
A
'same meaning as (94a)'

It is shown that the only difference between the two examples lies in case marking on the embedded subject *Eunbee*. Within the minimalist syntax, this difference corresponds to their different morphological case feature assigned in the lexicon. That is, the embedded subject of (94a) is assigned no case feature, whereas that of (94b) is assigned an accusative case feature by V, when they are selected by the numeration. This is consistent with the theory-internal assumption that case features are assigned arbitrarily as a noun is selected by the numeration (Chomsky 1995: 237, Schütze 1997). In connection with this optionality, the matrix verb of (94a) is assigned no intrinsic ability to check any case feature, whereas that of (94b) is assigned an ability to check an accusative case feature, when they are selected by the numeration. It follows that the two sentences are taken to have different numerations for computation.

Now feature checking in (94b) proceeds in the usual manner; *Eunbee* raises into the Spec of T downstairs first and then into the Spec of *v* upstairs in the overt syntax, as delineated in (95).

(95) ... [$_{vP}$ *Eunbee*$_1$-lul [$_{VP}$ ... [$_{TP}$ t_2 [$_{AP}$ t_1 yeppu] T] ... V(ECM] *v*] ...

Eunbee checks the D-feature of T downstairs and then the accusative case feature of *v* upstairs. Note that *Eunbee* does not check a case feature of T downstairs, since T lacks an intrinsic ability to check (NOM) case features in Korean, as originally assumed at the

outset of our discussion. Note also that *Eunbee* is assumed not to have a nominative case feature, as opposed to the analysis illustrated in the previous subsection. The strong D-feature of *v* induces overt raising of *Eunbee*, which is fully motivated for its strong feature checking before Spell-Out.

In contrast to (94b), *Eunbee* in (94a), as assumed above, is taken not to have any case feature when it enters a derivation. In accordance, the matrix verb is assumed to lack an intrinsic ability to check a case feature in terms of "case resistance" environments (Stowell 1981). Hence, *Eunbee* raises as far as the Spec of T downstairs to check its strong D(EPP)-feature. It obtains a default nominative case feature at PF by a "late insertion" mechanism in the sense of Marantz (1996).[14]

Interestingly, the ECM subject in Korean, as in Icelandic (Schütze 1997), shows an honorific agreement with the embedded predicate. As argued earlier, however, this agreement is not considered as a syntactic type of agreement, which is responsible for nominative case feature checking, and thus it is not treated as a case feature-checker.

(96) na-nun *sensayngnim*$_i$-ul [$_{CP}$ t_i yeppu-*si*-tako] sayngkakhanta.
I-TOP teacher-A pretty-HON-COMP think
'I think that the teacher is beautiful'

If this type of agreement is argued to be responsible for nominative case assignment as in English, (96) will constitute a double case configuration, presupposed in the 'Double Case Analysis' in the previous subsection. Under our default case system, however, the ECM subject is assumed to carry only one morphological case (ACC), and its feature checking is straightforward as described above. The default case mechanism further finds its

[14] Marantz (1996) abandons the MS (Morphological Structure) level on conceptual grounds. Instead, he replaces the proposed level with the Phonology level as a level where lexical insertion takes place, which roughly corresponds to the PF interface in this dissertation.

empirical merits in "superraising", which will be discussed in detail shortly.

3.5. Superraising

There are a variety of restrictions on movement or raising in natural languages to avoid ill-formed derivations. The intuitive idea behind such restrictions is that basically movement should be local. In this regard, "superraising" has been a serious problem to standard analyses of movement as it involves cases where a DP moves up beyond the subject of a clause, or skips a potential A-position, to an A-position in a higher clause. Recently, superraising was incorporated into the minimalist theory and blocked by the Minimal Link Condition (MLC) in Chomsky (1995). In this section, I will present several examples involving superraising across languages and show how the MLC is satisfied.

3.5.1. Raising out of Finite CP

Chomsky (1977: 74) proposes that NP-movement can raise an NP out of an *untensed* clause, but not out of a *tensed* clause. He formulates the following constraint rule, called the Tensed S Condition (TSC):

(97) Tensed S Condition
No rule can involve X and Y in structures of the type:
... X ... [$_{S'}$ ... Y ...] ... X ..., where S' is tensed.

We can interpret (97) in terms of movement as a constraint that any element cannot be extracted out of a *tensed* clause. Chomsky (1995: 286-297) discusses superraising in terms of the MLC within the minimalist syntax. Let us consider the following example for discussion.

(98) ___ seems [that __ was told John [that IP]]

Suppose that we have reached a stage of derivation D, where T is merged to *v*P in the embedded clause. As noted in the literature (Chomsky 1995; Ura 1996), T in English is strong in that the D-feature of it is strong. The D-feature, therefore, should be checked before Spell-Out. This feature checking should be performed before a larger category is formed, that is, before CP is merged. Now we can have two options to satisfy feature checking of T in question. First, we can insert an expletive *it* to satisfy the EPP. This operation, however, will leave the features of *John* unchecked. Hence, *John* can move to the matrix subject position for its feature checking. However, raising of *John*, as Chomsky (1995: 295) notes, is barred by the "shorter move" option that raises *it* to the position. Raising of *it* to the matrix position will also cause the derivation to crash, since its case feature has been already checked and erased in the embedded subject position.[15]

Since the DP category *John* cannot have its features checked in situ, it should move to some place for feature checking.[16] As a second option, *John* can raise to the embedded subject position. This raising will satisfy the EPP in the embedded clause, causing the derivation to converge. At a later stage, the matrix T is inserted by Merge. The matrix T is likewise strong, and its D(EPP)-feature should be checked before Spell-Out. Here again, the derivation can have two options to satisfy the EPP: insertion of *it* or raising of *John*. First of all, let us consider raising of *John*. Apparently, *John* will enter into a check-

[15] D- and phi-features, though checked in the embedded subject position, still remain accessible to further feature checking. Case features, on the other hand, are erased once they are checked.

[16] It is theory-internally assumed that feature checking always involves movement in Chomsky (1995); otherwise, SUBJ can have its features checked in an outer Spec of *v*. An exception is "inherent case" features, checking of which is assumed either to be unnecessary (Chomsky 1995; Ura 1996) or to be executed in situ (Schütze 1997).

ing relation with the matrix T, since its D-feature is still accessible to feature checking. The problem lies with its case feature. It has already been checked and erased in the embedded IP. It follows that T will remain with its case feature unchecked, resulting in crash. Ultimately, the computation C_{HL} will insert an expletive *it*, which is assumed to have been selected for the numeration. The EPP of the matrix T is satisfied by *it*, and other features are checked at LF.

What concerns us here is raising of *John* to the matrix subject position, which constitutes an instance of superraising. In Chomsky (1995), it is barred by the MLC. As *John* moves to some other positions, it forms chain links. Among these links, a shorter link is selected for the derivation to converge. Raising of *John* to the Spec of the embedded T forms a shorter link than that to the Spec of the matrix T. Thus, raising of *John* to the former is allowed, while raising of it to the latter is not. In this way, superraising is prohibited in English.

However, there are languages which allow superraising in convergent derivation. Korean is one of such languages. As the example of (99) shows, the embedded subject can raise out of the finite CP in raising constructions in Korean.

(99) apeci$_i$-kkese [$_{CP}$ [$_{TP}$ t_2 [$_{vP}$ t_1 ka-si]-ess]-ul tus] sip-ta.
father-N(HON) go-HON-PAST-COMP seem-DEC
'(My) father seems to have gone'

Since Korean lacks expletives, the EPP of the embedded and matrix clause will be satisfied by raising the embedded subject. Raising of *apeci* to the embedded TP-Spec will not violate the MLC, since it is the nearest A-position. Raising of it further to the matrix TP-Spec will apparently violate the condition, which is an instance of superraising. What

enables the embedded subject to raise further to the matrix subject position is the "default case strategy." Recall in (98) that raising of *John* to the matrix subject position runs into a problem. The problem comes from the fact that if *John* raises to the matrix position after its case feature is checked in the embedded TP-Spec, it exhausts a case feature which will be required by the matrix T, causing the derivation to crash. In Korean, however, the embedded subject *apeci* in (99) can further raise to the matrix subject position, since by the "default case strategy" it is assumed that T and the DP do not have case features to be checked off.

Along this line of account, the ECM subject can raise out of a finite CP, as illustrated in (2), repeated as (100).

(100) Chelsu-nun *Suni*$_i$-lul [$_{CP}$ [$_{TP}$ t_i yeppu-ess]-tako] mit-ess-ta.
TOP A pretty-PAST-COMP believe-PAST-DEC
'Chelsu believed that Suni was pretty'

Clearly, the embedded clause is a finite CP due to the presence of the past morpheme *ess* and the overt complementizer *tako*. Under our assumption that the ECM subject in English and Korean overtly raises into the Spec of the matrix *v*, the ECM subject *Suni* is assumed to have raised out of the finite CP. By the default case strategy again, the embedded finite T is not responsible for the case of *Suni*, which enables it to further raise into the Spec of the matrix *v* in overt syntax, where it checks its accusative case feature.

3.5.2. Raising of Nonsubject DPs

In this subsection, I will present another type of superraising, in which a DP moves over the subject of an embedded clause. As illustrated in section 2.3, there are several

languages which show the phenomenon of nonsubject ECM. Ura (1996) shows a typical example of this sort in Standard Arabic, which he regards as an apparent instance of superraising. Citing Ouhalla (1994) and Coopmans (1994), Ura (p.84) gives the following examples:

(101) Standard Arabic (Ouhalla 1994: 67)

a. dhanan-tu [ʔanna Zaynab-a ta-'rifi l-taalib-a]
believed-1SG COMP A 3F.SG-know the-student-A
'I believed that Zaynab knew the student'

b. dhanan-tu l-taalib-a_i [ʔanna Zaynab-a ta-'rifu-*hu* t_i]
believed-1SG the-student-A COMP A 3F.SG-know-3M.SG
'the same meaning as (101a)'
(Lit. 'I believed the student$_i$ that Zaynab knew him$_i$)

(101b) is an ECM construction, where the object DP in the embedded clause is ECMed beyond the subject DP of the same clause. Following Salih (1985a,b) and Ouhalla (1994), Ura analyzes (101b) as being derived from (101a) by virtue of superraising. He limits the occurrence of superraising to languages which allow possessor-raising from SUBJ. When a possessor raises, it raises into an outer Spec of T, so that T has two Specs. As shown in (102), Standard Arabic allows possessor-raising from SUBJ:

(102) Standard Arabic (Moutaouakil 1989: 128)
Zayd$_i$-un [t_i ʔabuh]-u marid-un.
N father-N ill-N
'Lit. 'Zayd, (his) father is ill' (Ura 1996: 89)

This is a multiple subject construction, in which each subject DP checks its features in each Spec of T. Since Arabic allows two Specs with respect to a single head T, it is assumed, as Chomsky (1995) notes, that Arabic may tolerate an unforced violation of Procrastinate.[17]

[17] Chomsky (1995: 374) divides a violation of Procrastinate into two: *forced violation* and *unforced viola-*

Now let us see how the multiple-Spec configuration is related to superraising. Ura (1996: 89) illustrates the derivation of (101b) in a step-by-step manner. First, he suggests (103) as the stage of the derivation where the embedded *v*P is created:

(103) $[_{vP}$ SUBJ v $[_{VP}$ V OBJ$]]$

Under the assumption that *v* in Arabic is not strong, SUBJ is inserted by Merge without overt raising of OBJ into the Spec of *v*. Now T is merged to (103) and two Specs of T are created. First of all, SUBJ moves into the inner specifier position, shown as follows:

(104) $[_{TP}$ SUBJ$_i$ T $[_{vP}$ t_i v $[_{VP}$ V OBJ$]]]$

After SUBJ raises into the inner Spec of T, OBJ is attracted to the outer Spec of T for its feature checking, leaving a pronominal copy like *hu* in (101b).

(105) $[_{TP}$ OBJ$_j$ $[_{T'}$ SUBJ$_i$ T $[_{vP}$ t_i v $[_{VP}$ V $t_j]]]]$

The movement of OBJ to the outer Spec of T does not violate the MLC because V overtly raises to T in Arabic, and OBJ and SUBJ are in the same minimal domain of T.

Next, the overt complementizer and the matrix ECM verb are introduced by Merge as follows:

(106) $[_{VP}$ V(ECM) $[_{CP}$ COMP $[_{TP}$ OBJ$_j$ $[_{TP}$ SUBJ$_i$ T $[_{vP}$ t_i v $[_{VP}$ V $t_j]]]]]]$

Ura (p. 90) assumes that "ECM verbs in Standard Arabic may be either strong or null. If strong, they attract something with a nominal feature to their Spec before Spell-Out; if null, they have no case feature to be checked." Let us suppose that they are strong. Then, OBJ or SUBJ in (103) can be attracted to the Spec of *v* because of their equidistance from the target, shown as follows:[18]

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tion. The former is made for convergence and thus does not constitute an economy violation, while the latter is a true economy violation.

[18] The Spec of C need not be present at the time of the movement of the object; that is, a potential specifier

(107) $[_{vP}$ OBJ$_j$ Vb(ECM) $[_{VP}$ t_v $[_{CP}$ COMP $[_{TP}$ t_j $[_{TP}$ SUBJ$_i$ T $[_{vP}$ t_i v $[_{VP}$ V-pro$_j]]]]]]]$

When OBJ raises into the matrix position, it leaves its copy, *pro*$_j$ in (107), with the same feature, which is cliticized onto V. The raised OBJ enters into a checking relation with the ECM verb, while its copy with the embedded main verb; otherwise, the derivation will crash. According to Ura (1996), two conditions should be met to induce superraising: multiple Specs by possessor-raising and copy-raising.

Let us turn to another potential language, Korean, which meets such conditions, to see how superraising is induced in this language. Korean exhibits the so-called possessor-raising phenomenon and allows multiple Specs of T in phrase structure due to the fact that it has multiple subject constructions. Let us consider the examples illustrated in (9), repeated as (108).

(108) a. na-nun [$_{CP}$ Chelsu-ka ton-i/*-ul manh-tako] sayngkakha-n-ta.
I-TOP N money-N/*A much-COMP think-PRES-DEC
'I think that Chelsu has a lot of money'

b. na-nun ton$_i$-*ul* [$_{CP}$ Chelsu-ka t_i manh-tako] sayngkakha-n-ta.
I-TOP money-A N much-COMP think-PRES-DEC
'same meaning as (108a)'

The embedded clause is a psych-verb construction (PVC).[19] The illegitimacy of accusative case on the theme DP *ton* 'money' indicates that the embedded predicate is not responsible for accusative case assignment. Now the theme *ton* is ECMed beyond the subject as illustrated in (108b). According to Ura's analysis, the embedded subject *Chelsu* first raises into the inner Spec of T of the embedded clause. In contrast, the theme *ton*

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position is only present in the derivation by virtue of its being filled or targeted for movement. The movement of the object to the Spec of the matrix *v*, therefore, does not violate the MLC (see Jonas & Bobaljik 1993; Miyagawa 1993a; Fukui & Speas 1986).

[19] It is also called a Dative Subject Construction in that the experiencer (subject) is dative case-marked, assigned by the verb inherently. In this sentence, the subject is nominative case-marked by default.

raises into the outer Spec of T in a multiple Spec configuration and then into the Spec of *v* in the matrix clause.

One important thing to note is that the theme DP, unlike in Standard Arabic, leaves no copy, a certain kind of a pronoun, when it raises into the matrix clause. The immediate question to this derivation arises as to how the embedded main verb checks its features. We can provide a plausible answer as follows. As noted above, the embedded predicate is not responsible for case feature checking. Thus, it checks its D-feature only. On the way up to the Spec of the matrix *v*, *ton* stops at the outer Spec of the embedded T to check its D-feature, but not case feature because T in Korean is not responsible for any case feature checking. The final destination of *ton* is the Spec of the matrix *v* to check its D-feature and accusative case feature.

3.5.3. Problems with Superraising in Ura (1996)

Given the analyses of Standard Arabic and Korean superraising in ECM constructions, we encounter some theoretical problems with Ura's analysis in terms of a multiple Spec configuration and copy-raising. First, if copy-raising is essential to superraising in that the copy left by the superraised DP enters into a feature-checking relation with the embedded verb, superraising in Korean (and Japanese) will remain unexplained, since these languages lack copy-raising.[20] Second, if the superraised DP with an accusative case feature moves through the outer Spec of the embedded T as an escape hatch, it is not clear how T's nominative case feature is checked by the superraised DP there. This derivation

[20] See example (81) in chapter 5 for superraising in Japanese.

will crash unless T is exempted from checking its nominative case feature in its outer Spec. To illustrate, let us return to the analysis of the Standard Arabic ECM construction in (101b). The object of the embedded clause in (101b), which is accusative case-marked, is argued to raise into the outer Spec of the embedded T as an escape hatch. The problem consists in how the object DP and T enter into a feature-checking relation. In particular, there is a mismatch of case feature between them. Suppose that the object further raises into the Spec of the matrix *v* to check its case feature without checking the case feature of T, as desired. The embedded T, however, still remains with its case feature unchecked, causing the derivation to crash.

There arises no problem in Korean ECM construction (108b), since T in Korean, as assumed throughout our discussion, is not responsible for nominative case feature checking under our default case system. Hence, the superraised DP can move through the outer Spec of the embedded T without causing any problem with case feature checking there. Even under this system, however, it is not even clear why T in the superraising constructions discussed above should project an extra outer Spec even when its case feature is not checked there. Hence, it should be stipulated in Ura (1996) and the present study that the extra Spec, when superraising takes place, is allowed to be created freely in order to function as an escape hatch.

3.6. Conclusion

I conclude this chapter by responding to the questions raised in section 2.4. First, the ECM subject of a finite embedded clause is assigned accusative case by the matrix verb;

otherwise, it is assigned nominative case by default. This is made possible by our default case mechanism in which T is not responsible for nominative case assignment and checking in Korean and other languages described in section 2.

Second, I attribute the case alternation phenomenon to Chomsky's (1995) assumption that a DP can be *optionally* assigned a case feature when it is selected by the numeration. If it is assigned an accusative case feature in the lexicon, it enters into a feature-checking relation with the matrix *v* and has its case feature checked by *v*, resulting in an ECM configuration. If it is assigned no case feature in the lexicon, however, it does not undergo any type of case feature checking; finally, it obtains a morphological case feature at the output by default and is spelled out as nominative to satisfy the condition (1a) of the Case Filter stated in chapter 2.

Third, the phenomena of ECM into a finite CP and ECM of nonsubjects are made possible by "superraising" in the sense of Ura (1996). As the ECM subject does not have its case feature checked off within an embedded clause, it can go further into the matrix across a finite CP boundary or a specified embedded subject. To satisfy the MLC in Chomsky (1995), the ECM subject first raises into the outer Spec of the embedded T and then into the Spec of the matrix *v*. Superraising is substantiated by the availability of multiple Specs of T, the outer Spec of which plays a role as an escape hatch.

CHAPTER 4
POSSESSOR-RAISING AND MULTIPLE FEATURE CHECKING

4.1. Introduction

The so-called Double Nominative Constructions (DNC) under the GB theory raise two interesting issues: (I) how two nominative-marked DPs in DNCs, which I call the possessor DP and the possessed DP, are assigned case with respect to a single INFL and (II) how DNCs are generated. The first issue directly comes from the standard case theory that enforces a one-to-one mapping between a case assigner and assignee (Chomsky 1981). Given that a single (finite) clause has only one INFL category, the presence of the extra nominative DP poses a serious problem in terms of case assignment. The second issue has been of hot debate among researchers and divides them into two groups. One group of researchers claim that DNCs are base-generated and the possessor DP is a nominative-marked "focus", not a grammatical subject (I. Yang 1972, B. Park 1981, Yim 1985, Y. Kim 1990). The other group of researchers argue that DNCs are derived from their genitive counterparts by possessor-raising (S. Song 1967, Y. Kang 1986, H. Choe 1988; Kuno 1973 and Ura 1996 for Japanese).

This chapter attempts to provide a more principled account of DNCs under the framework of the Minimalist Program (Chomsky 1993, 1995) combined with the Bare Phrase Structure (Chomsky 1994). Within this combined framework, two nominative-marked DPs are argued to raise into two Specs of T for feature checking: the whole possessive DP into an inner Spec and the possessor DP into an outer Spec. For this argumentation, I

claim, taking the position of the second group of researchers, that the operation called "possesor-raising" is responsible for deriving DNCs. I further claim, following Ura (1996), that possessor-raising is possible only when two DPs are in an inalienable possession relation. It follows that two DPs in other relations are considered to be base-generated, one of which is treated as a "major subject" bearing a meaning of 'topic' or 'focus' in the sense of Ko (1983), Bak (1981), and Kuroda (1978).

4.2. Basic Properties of DNCs

4.2.1. The Empirical Domain

4.2.1.1. Inalienable possession

In the following examples, the possessor DP shows case alternation between genitive and nominative with respect to the possessed DP. When it is nominative case-marked, it forms a DNC on a par with the possessed DP. Consider the following examples.

(1) Korean (Ahn 1990)
   a. khokkili-*euy* kho-*ka* kil-ta.
      elephant-G nose-N long-DEC
      'The elephant's nose is long'

   b. khokkili-*ka* kho-*ka* kil-ta.
         N N
      'same meaning as (1a)'

(2) Japanese (Ura 1996: 100)
   a. Mary-*no* kami-*ga* naga-i.
      Mary-G hair-N long-be
      'Mary's hair is long'

   b. Mary-*ga* kami-*ga* naga-i.
         N N
      'same meaning as (2a)'

It is widely held in the literature that the (b) examples are derived from their genitive counterparts (a) by possessor-raising (S. Song 1967, Y. Kang 1986, H. Choe 1988; Ura 1996 for Japanese) or "Subjectivization" (Kuno 1973). Possessor-raising is referred to as "an operation by which a DP contained within another DP is moved out of the host DP (Ura 1996: 100)," and Subjectivization is referred to as an operation that changes the genitive marker to the nominative marker "to make it the new subject of the sentence (Kuno 1973: 71)."

Ura (1996: 102) argues that possessor-raising is possible only if the possessor DP is in an inalienable relation with the possessed noun. It is shown that two nominative-marked DPs in (1)-(2) are in a body-part relation, which is universally called an "inalienable possession" relation, defined by Croft (1990: 175) as follows:

(3) Inalienable possession refers to a permanent relationship between two entities. The most conspicuous examples are parts, such as body parts and kinship relations.

The notion of "inalienable possession" is, in essence, a notion of "semantic dependency." In light of this notion, Vergnaud and Zubizarreta (1992: 596) describes an inalienable object as "a dependent entity in the sense that it is inherently defined in terms of another object, of which it is a part."

In principle, there is no limit on the number of nominative DPs in a single clause as far as they are in an inalienable relation. Consider the following examples.

(4) Korean
a. i namu-*ka* kaci-*ka* kkuth-*i* pule-ci-ess-ta.
this tree-N branch-N end-N break-PASS-PAST-DEC
'The end of this tree's branch was broken'

b. emeni-*ka* elkul-*i* culum-*i* manh-ta.
mother-N face-N wrinkle-N much-DEC
'Mother has a lot of wrinkles on her face'

As shown above, all DPs are in an inalienable possession relation. In particular, such a relation is not limited to a human possessor and its body parts, but it also extends to an inanimate object and its parts as in (4a). Due to the appearance of more than two nominative DPs in a single clause, a Multiple Nominative Construction (MNC) results.

4.2.1.2. Noninalienable possession

Another type of possessor relation is an alienable one. Most examples of this type also exhibit DNC, exemplified as follows:

(5) Korean
a. apeci-*euy* hoesa-*ka* mangha-ess-ta.
father-G company-N fail-PAST
'(My) father's company went bankrupt'

b. apeci-*ka* hoesa-*ka* mangha-ess-ta.
N N
'same meaning as (5a)'

(6) Japanese (Ura 1996: 102)
a. John-*no* kuruma-*ga* seibifuryoo-da.
John-G car-N ill-conditioned-be
'John's car is ill-conditioned'

b. John-*ga* kuruma-*ga* seibifuryoo-da.
N N
'same meaning as (6a)'

By the definition in (3), the possessed nouns in (5) and (6) are considered as alienable entities, since they do not denote the relation that is inborn, inherent, or not conferred by purchase (Nichols 1988). Considering a semantic relation holding between (a) and (b)

above, one might be tempted to say that the latter is likewise derived from the former by possessor-raising as in (1) and (2). Ura (1996: 103), however, argues against this possibility, and he, following Kuroda (1986) and Tateishi (1991), suggests that "the nominative-marked possessor DP is base-generated as the so-called 'major subject' of the clause."

Korean shows further unique aspects of DNCs in that two DPs without any possessive relation can form a DNC. The relations between the two DPs are of various semantic types, shown as follows:

(7) a. * tambay-*euy* Kent-*ka* swunha-ta.
cigarette-G Kent-N mild-DEC
Lit. 'Cigarette's Kent is mild'

b. tambay-*ka* Kent-*ka* swunha-ta.
N N
'As for cigarette, Kent is mild'

(8) a. * yelum-*euy* maykcu-*ka* masiss-ta.
summer-G beer-N delicious-DEC
Lit. 'Summer's beer tastes good'

b. yelum-*i* maykcu-*ka* masiss-ta.
N N
'It is in summer that beer tastes good'

(9) a. ?* Midopha paykhwacem-*euy* os-*i* ssa-ta.
department store-G clothes-N cheap-DEC
Lit. 'Clothes of Midopha department store are cheap'

b. Midopha paykhwacem-*i* os-*i* ssa-ta.
N N
'It is in Midopha department store that clothes are cheap'

The two DPs in (7)-(9), which I will call DP1 and DP2 from the leftmost, are not in a uniform semantic relation. First of all, DP1 and DP2 in (7) are in a whole-part relation; DP2

belongs to the whole category DP1 as one of its members. DP1s in (8) and (9) are a temporal and locative adjunct in meaning respectively. The ill-formedness of the (a) examples indicates that the (b) examples are not derived by possessor-raising, supporting the argument that DNCs in a noninalienable relation are base-generated.

4.2.2. Some Differences between IPCs and APCs

Ura (1996: 101), citing Nichols (1988), illustrates that "what counts as a permanent relationship varies from language to language according to the social and cultural heritage of the language."[1] In this dissertation, only the body-part relation, animate or inanimate, is regarded as an inalienable possession relation. Hence, only this relation is argued to trigger possessor-raising to form DNCs in Korean. This subsection is reserved for a brief illustration of some different grammatical aspects between IPCs and APCs in order to provide them with an appropriate grammatical account.

4.2.2.1. Shift of possessed DP

IPCs and APCs exhibit different behaviors in terms of shifting the possessed DP. In IPCs, once the possessor DP is raised out of its host DP, it can freely shift over the possessor DP with its original sentential meaning intact.[2] Consider the following examples.

(10) a. Eunbee-*ka* son-*i* yeppu-ta.
N hand-N pretty-DEC
'Eunbee's hand is pretty'/Eunbee has a pretty hand'

[1] The criteria of inalienable nominals also vary among researchers. Tellier (1990) considers only kinship terms and body-part nouns as inalienable nouns. Anderson (1983) takes picture nouns, kinship terms, and body parts to be inalienable ones, whereas Vergnaud and Zubizarreta (1992) mention a wide range of nouns as inalienable ones such as clothes, kinship terms, picture nouns, computer, and car.
[2] The shift, however, changes focus in pragmatics.

b. son_j-*i* $Eunbee_i$-*ka* [$_{DP}$ t_i t_j] yeppu-ta.
N N
'same meaning as (10a)'

In contrast, APCs do not allow this shift phenomenon, shown as follows:[3]

(11) a. chinku-*ka* tongsayng-*i* cuk-ess-ta.
friend-N brother-N die-PAST-DEC
'(My) friend's brother died'

b. * $tongsaying_i$-*i* chinku-*ka* t_i cuk-ess-ta.
N N
'(My) brother's friend died'

Shifting causes the sentence to be ill-formed (11b). As the English translation shows, sentence (11b) entails a totally different meaning, where the original possessor-possessed relation is reversed.

I take this contrast to reflect their different syntactic behaviors in terms of possessor-raising. That is, when the possessor *Eunbee* in (10a) is raised out of its host DP by possessor-raising, it does not form a DP constituent with the possessed *son* 'hand' any longer, which, as a result, enables *son* to shift over *Eunbee* as an independent syntactic constituent. It is important to note that two DPs in an inalienable possession construal maintain their possession relation even after raising and shift. In contrast, those in an alienable possession construal do not, as shown in (11b). This indicates that the possessor DP in an APC should remain in its base position in order to maintain an alienable possession relation along with the possessed DP, which lends support independently to the Ura's (1996) claim that possessor-raising is possible only in IPCs.

[3] As mentioned above, kinship relations such as family members and friends are, as opposed to Croft's (1990) definition (3), treated as being alienable for an account of possessor-raising in this dissertation.

4.2.2.2. Adverbial insertion

One interesting aspect of DNCs is that they, unlike their genitive counterparts, allow an adverbial element to be inserted between two nominative-marked DPs. Ura (1996: 101) takes this phenomenon to be a piece of evidence for overt possessor-raising. Consider the following inalienable DNCs.

(12) Korean
a. * [$_{DP}$ Eunbee-euy *cengmalo* son]-i yeppu-ta.
Eunbee-G really hand-N pretty-DEC

b. Eunbee$_i$-ka *cengmalo* [$_{DP}$ t_i son]-i yeppu-ta.
N really hand-N pretty-DEC
'Eunbee's hand is really pretty'

(13) Japanese (Ura 1996: 101)
a. * [$_{DP}$ Mary-no *totemo* kami]-ga naga-i.
Mary-G extremely hair-N long-be

b. Mary$_i$-ga *totemo* [$_{DP}$ t_i kami]-ga naga-i.
Mary-N extremely hair-N long-be
'Mary's hair is extremely long'

Given that the adverb modifies the adjective within IP, I, following Ura (1996: 102), suggest that the adverb is adjoined to IP, as delineated in (14).

(14) [$_{IP}$ Poss-DP$_i$-N [$_{IP}$ Adv [$_{IP}$ [$_{DP}$ t_i NP]-N [$_{AP}$ Adj]]]]

It should be noted that inalienable DNCs such as (12b) and (13b) sound perfect with the adverbial element in any position including the position between the possessor and possessed DP. However, the occurrence of an adverbial element in alienable DNCs is limited in such a way that their grammatical felicitness is affected by the type of predicate.

(15) Korean

a. na-nun/-ka *ecey* kabang-i epseci-ess-ta.
I-TOP/N yesterday bag-N disappear-PAST-DEC
'My bag disappeared yesterday'

b. ?? chinku-nun/-ka *pyengwon*-ese emeni-ka tolaka-si-ess-ta.
friend-TOP/N hospital-at mother-N pass away-HON-PAST-DEC
'(My) friend's mother passed away at the hospital'

c. ?* na-nun/-ka *tosekwan*-ese chinku-ka kongpuha-n-ta.
I-TOP/N library-in friend-N study-PRES-DEC
'(My) friend is studying in the library'

(15a) sounds perfect to most of native speakers. The other two examples sound somewhat weird although they are not ungrammatical with a locative PP. If the locative adverbial PP is placed post to the possessed DP, the sentence sounds much better. Inalienable DNCs, on the other hand, are still perfect with such a locative adverbial PP inserted, as illustrated in (16).

(16) Korean

a. ku inpu-ka *cakepcang*-ese sonkalak-i cal-i-ess-ta.
that worker-N work place-at finger-N cut-PASS-PAST-DEC
'The worker had his finger cut at the work place'

b. ku namu-ka *cengwon*-e iph-i tteleci-ess-ta.
that tree-N garden-in leaf-N fall-PAST-DEC
'The leaves of the tree fell in the garden'

It might be that the grammaticality of the examples in (15a,b) can weaken our hypothesis that only IPCs involve possessor-raising. However, they might contribute to our finding that they are different from IPCs at least in appropriateness for adverbial insertion.

4.2.2.3. Double accusative constructions (DACs)

Korean is also uniquely characterized by the existence of the so-called "Double Accusative Constructions" (DACs), in which there appear two accusative-marked DPs with respect to a single predicate in a clause. The examples in (17) are also called the Inalienable Possession Constructions (IPCs) due to the semantic relationship that holds between the possessor DP and the possessed DP (Chun 1985, Y. Kang 1986, M. Kang 1988, S. Kang 1994).

(17) a. Toli-ka Suni-*lul* son-*ul* cap-ass-ta.
Toli-N Suni-A hand-A hold-PAST-DEC
'Toli held Suni by the hand'

b. Suni-ka sakwa-*lul* kkepcil-*ul* peski-ess-ta.
Suni-N apple-A skin-A peel-PAST-DEC
'Suni peeled the skin from the apple'

In (17a), two accusative DPs are shown to be in an inalienable relation. By our extension of the body-part relation to that of inanimate objects, those in (17b) are also considered to be in the same relation. Due to the fact that Korean allows constructions like (17), Broadwell's (1990: 228) generalization, stated in (18), holds true for Korean, but not for Japanese, as shown in (19).

(18) Every language that allows possessor of subjects to be extracted also allows possessor of objects to be extracted.

(19) Japanese (Ura 1996: 110)
a. *Inalienable possessor*
* John-ga Mary-*o* atama-*o* nagut-ta.
N A head-A hit-PAST
'John hit Mary's head'

b. *Alienable possessor*
* John-ga Mary-*o* kuruma-*o* migai-ta.
N A car-A polish-PAST
'John polished up Mary's car'

Here is a parametric difference between Korean and Japanese. Japanese allows possessor-raising only from subjects, whereas Korean allows it from objects as well as from subjects. It is shown in (19) that possessor-raising in Japanese is not allowed in both types of relation. In Korean, however, possessor-raising is not allowed only in an alienable relation. Consider the following examples.[4]

(20) a. * Tori-ka Suni-*lul* chayk-*ul* cap-ass-ta.
N A book-A hold-PAST-DEC
'Tori held Suni's book'

b. * Chelsu-nun Suni-*lul* chinku-*lul* ttayli-ess-ta.
TOP A friend-A hit-PAST-DEC
'Chelsu hit Suni's friend'

To sum up, possessor-raising is possible not only from subjects but also from objects in Korean. It is possible only when the possessor DP and the possessed DP are in a particular semantic relation called an "inalienable relation," creating an asymmetry between Inalienable Possession Constructions (IPCs) and Alienable Possession Constructions (APCs) in terms of possessor-raising. This asymmetry can be expressed in terms of "violability of Procrastinate" in Chomsky (1995); IPCs tolerate it, whereas APCs do not. This issue will be taken up in a later section.

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[4] Note that nouns such as clothes, which are considered as alienables in the present analysis, can form DACs on a par with human possessors, shown as follows:
(i) Tori-ka Suni-*lul* os-*ul* cap-ass-ta.
N A dress-A hold-PAST-DEC
'Tori held Suni's clothes'
The interpretation of this sentence is possible only when *Suni* is wearing the dress, attached to her body. In this case, the dress is treated as a body part. This contrasts with DNCs, in which clothes can be construed as alienables, separated from human bodies.

4.3. Case and Theta-Role Assignment in DP

Within the GB theory (Chomsky 1981), there are two main principles governing the presence of lexical arguments in a sentence. First, Chomsky's Theta Criterion in (21) ensures that a lexical noun phrase will have exactly one thematic role assigned to it. Second, the Case Filter in (22) dictates that every argument with phonetic content should have case.

(21) Theta Criterion (Chomsky 1981: 36)
Each argument bears one and only one theta-role and each theta-role is assigned to one and only one argument.

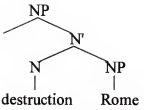
(22) Case Filter (Chomsky 1981: 49)
*NP if NP has phonetic content but has no Case.

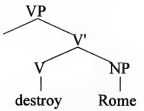
In this section, I will illustrate how possessor nominals, as arguments, receive a theta role and case to be licensed in DP.

4.3.1. Argument Structure of Nominals

4.3.1.1. Derived nominals and the projection principle

Chomsky (1970: 189) remarks that derived nominals can have the internal structure of noun phrases. The internal structure of NPs consists of an agent and a theme. A well-known example of this sort is *Rome's destruction*, in which *Rome* is considered as a theme of the derived nominal *destruction*. This internal structure is analogous to that of the verb phrase *destroy Rome*. Let us look at the internal structure of these two types in (23). On standard assumptions, the transitive verb *destroy* in (23b) assigns a theta-role and case to its complement *Rome*.

(23) a. 

b. 

As far as theta-role assignment is concerned, the noun *destruction* in (23a), which is derived from *destroy*, is considered to likewise assign the object role to *Rome*. Even when *Rome* is preposed for a case reason, it still preserves a constant theta-role with it. After being preposed, *Rome* takes genitive case, yielding *Rome's destruction* on the surface. Due to the Theta Criterion stated in (21), *Rome* is correctly interpreted as the "object" of *destruction*.

As the transitive verb *destroy* has a subject, its derived noun *destruction* likewise can have a subject in semantic interpretation. The subject of *destruction* can be represented as follows:

(24) a. *the enemy's* destruction of Rome
b. Rome's destruction *by the enemy*
c. the destruction of Rome *by the enemy*

In (24a) the subject is base-generated in NP-Spec, whereas in (24b,c) the subject appears in a post-nominal position, which is derived by the operation called *agent-postposing* in Chomsky (1970: 203-4). The theme *Rome* is also derived in two ways: either by NP-preposing (24b) or by *of*-insertion (24a,c). One thing to note here is that the head noun *destruction* need not assign a theta-role to the subject position due to the fact that the subject position is optionally empty in NPs. Hence, theta-role assignment must be optional to allow NPs like *the destruction of Rome*.

4.3.1.2. Underived nominals

As illustrated above, derived nominals can assign a theta-role to their internal arguments. The thematic relationship between the derived noun *destruction* and its object *Rome*, for example, is determined in the internal structure of NP, and it never varies whether *Rome* is preposed or stays in its base position with *of* inserted. In contrast to derived nominals illustrated above, underived nominals are generally considered to lack a capacity to assign a theta-role to their prenominal genitive NPs (Chomsky 1970, Anderson 1983).

Due to the lack of theta-role assignment, the thematic relation between the two is loose. In other words, the genitive NPs can entail a variety of relationships to their head nouns. A relevant example that Chomsky (1970: 202) gives is the phrase *John's picture*. Chomsky says that this phrase is ambiguous in that it can mean *the picture of John* or *the picture of John's*. To clear up such uncertain relationships, Chomsky (1970) employs a transformational analysis, which I call 'S-Deletion', in which S in a relative clause is deleted after a genitive NP is moved to prenominal position. To obtain the latter meaning in the phrase *John's picture*, for example, he hypothesizes that *the picture of John's* is derived from its underlying structure *the picture that John has*, which involves a relative clause.

Chomsky (p. 200) further says that even a body part of a human can be ambiguous between "alienable" and "inalienable" possession. For example, the phrase *John's leg* is ambiguous. First, it can induce an alienable meaning, in which it is used to refer to the leg that John happens to have in his possession, that is, that he is holding under his arm.

Second, it can induce an inalienable meaning, in which it is used to refer to the leg that is, in fact, part of John's body. The phrase *the leg that John has*, however, is not ambiguous at all, since it can induce only the alienable possession relation.

Anderson (1983: 3) points out that Chomsky's (1970) analysis in terms of S-deletion is problematic in that "the thematic role assigned by *have* seems to be marked by the genitive morpheme but there is no formal relationship between this semantically null element and the deleted *have*." Rather, she proposes an analysis in which underived nominals are base-generated before the head noun. She postulates the following three distinct syntactic sources for prenominal genitive NPs:

(25) a. NP preposing.
b. Base generation before the head noun, with the possessive morpheme *'s* lexically inserted before concrete nouns such as *store*.
c. Base generation before the head noun with the *'s* transformationally inserted as a semantically null empty marker before abstract nouns such as *reliance*.

NP preposing, as illustrated above, is responsible for the derivation of a prenominal genitive NP which is the object of a derived noun such as *destruction*. (25b) and (25c) are posited to account for theta-role assignment of phrases like *John's store* and *John's reliance* respectively.

In the phrase *John's store*, the head noun *store* is a concrete noun, which is, in Anderson's dichotomy between "concrete" and "abstract" nouns, taken to lack an ability to assign a theta-role to its prenominal genitive NPs. It follows that *John* does not receive any theta-role from the concrete noun *store*, violating the Theta Criterion. According to Anderson, it is the lexical possessive marker *'s* in this case that is responsible for assigning a theta-role to *John*, satisfying the Theta Criterion.

In contrast, the head noun in the phrase *John's reliance (on his friends)*, according to her dichotomy, is able to assign a theta-role--a kind of 'agent'--to *John*, which causes no conflict with the Theta Criterion. The possessive marker *'s* in this case is introduced transformationally with no semantic content, but it simply indicates (genitive) case on *John* in order to satisfy the Case Filter.

4.3.1.3. Inalienable nouns as equivalents to derived ones

In the previous subsection, we have seen that underived nouns, concrete nouns in Anderson's term, are not able to assign a theta-role to genitive NPs before them. Recent attempts, however, have been made at characterizing inalienable nouns as capable of taking arguments subject to the Projection Principle (Tellier 1990, Vergnaud and Zubizarreta 1992). Tellier (1990: 473), drawing on French data, shows that the genitive constituent construed as the possessor must be linked to a position in the syntax, which is consistent with the Projection Principle if (inherently) "relational" nouns (inalienable nouns in our term) assign a possessor theta-role. Tellier distinguishes relational (inalienable) nouns from nonrelational (alienable) ones in terms of theta-role assignment; that is, the latter are not able to assign a theta-role to the genitive possessor, which is ultimately treated as an "adjunct," and is truly optional.

Vergnaud and Zubizarreta (1992) also reach the same conclusion that inalienable nouns, but not alienable ones, take a "possessor" argument. They present two types of inalienable possessor constructions, *internal* and *external* possessor constructions, to show this fact. Consider the following examples.

(26) French (Vergnaud and Zubizarreta 1992: 598)

a. Le médecin a radiographié [*leurs* estomacs].
the doctor X-rayed *POSS(3.PL)/POSS-ED(PL)* stomachs

b. Le médecin examiné [*leurs* gorges].
the doctor examined *POSS(3.PL)/POSS-ED(PL)* throats

(27) French (Vergnaud and Zubizarreta 1992)

a. *Les enfants* ont levé *la main.*
the children raised the hand (p. 596)

b. Le médecin *leur* a radiographié l' *estomac.*
the doctor *to them* X-rayed SG.DEF.DET *stomach*
'The doctor X-rayed their stomachs' (p. 597)

c. Le médecin a radiographié l' *estomac aux enfants.*
the doctor X-rayed SG.DEF.DET *stomach to the children*
'The doctor X-rayed the children's stomachs' (p. 597)

The structures in (26) are referred to as *internal possessor* constructions. In the structures in (26), the possessor argument is not a separate argument of the verb governing the inalienable, but is realized in a position internal to the noun phrase headed by the inalienable noun. In contrast to (26), the possessor argument in (27) is realized in a position external to the noun phrase headed by the inalienable noun. Hence, the structures in (27) are referred to as *external possessor* constructions. In (27a), the possessor argument is separated from the inalienable head noun and is realized in subject position. In (27b,c), the possessor argument is realized as a dative complement of the verb that governs the inalienable argument.

Due to the fact that the possessor argument in (27) is realized in a position external to the inalienable head, the structures in (27) sometimes yield an ambiguity in interpretation. Vergnaud and Zubizarreta (1992: 596) compare (27a), repeated as (28a), with its English counterpart (28b), and present some intriguing differences between the two languages.

(28) a. Les enfants ont levé *la main*.
b. The children raised *the hand*.

They say that the French example in (28a) is ambiguous in interpretation because the two arguments *les enfants* and *la main* can maintain an inalienable or alienable possession relation. If they maintain an inalienable possession relation, *la main* can refer to a body part of each individual of *les enfants*. The English counterpart (28b), on the other hand, induces only the alienable interpretation, in which *the hand* does not refer to a body part of each of the children. If Vergnaud and Zubizarreta's analysis of inalienables by positing an external possessor argument is correct, *the children* in (28b) is not referred to as the possessor argument of *the hand*, inducing only the alienable interpretation.

To sum up, we have observed that there are in general two types of nominals: derived and underived nominals. Derived nominals are characterized as having an internal structure in which a head noun can have arguments such as an object and an (optional) subject. In contrast, underived nominals, which include alienable and inalienable nominals, were generally assumed to have no such arguments. Recent work, however, attempts to treat inalienable nouns in a way that they, unlike alienable nouns, can take an argument called a "possessor argument" (Tellier 1990, Vergnaud and Zubizarreta 1992). With these facts in mind, let us proceed to the issue of how the internal structure of an inalienable possessive DP is represented syntactically and how it is differentiated from its counterpart, an alienable possessive DP, in syntactic representation.

4.3.2. Internal Structure of (In)alienable Possessive DP

4.3.2.1. N-raising and DP analysis

It is well-documented in Szabolcsi (1983) and Abney (1987) that DP is a maximal projection headed by D, which subsumes NP as a complement of the head D. On theoretical grounds, the postulation of DP will be justified in light of the generalization of X-bar theory to all lexical and nonlexical categories. On empirical grounds, however, it is a complicated issue to choose between NP and DP. Recently, several attempts, drawing on empirical data, have been made to support a DP analysis in terms of N-raising (Taraldsen 1990, Longobardi 1994a).

Taraldsen (1990) presents the following Norwegian examples to show an N-raising effect.

(29) a. hans bøker om syntaks
his book about syntax

b. bøkene hans om syntaks
book-s-the his about syntax

As shown above, there are two alternative linear orders of NP; (29a) shows the normal order of NPs, whereas (29b) shows an alternative N-initial order, in which N is adjacent to the determiner. Looking at this, one might assume that *book* is base-generated in initial position. But Taraldsen argues against this possibility and proposes to derive it from (29a) by virtue of N-raising, which can be identified with head-to-head movement from N to D, substantially supporting a DP analysis for Norwegian nominals.

Along the same line of arguments above, Longobardi (1994a) endorses the DP analysis. He (p. 612) observes that "a singular countable head noun may not occur in

Italian in any of the major argument positions such as subject, direct object, prepositional object, etc., without being introduced by an overt determiner such as a definite or indefinite article, a quantifier, or a demonstrative." Accordingly, he makes the following generalization (p. 620):

(30) A "nominal expression" is an argument only if it is introduced by a category D.

However, he notices some exceptional instances of the generalization in (30) in proper names, which freely occur in argument position without being accompanied by any determiner, as exemplified in (31a).

(31) Italian (Longobardi 1994a: 622)
   a. Gianni mi ha telefonato.
      Gianni called me up
   b. Il Gianni mi ha telefonato.
      the Gianni called me up

In (31b), the D position introducing the subject argument is occupied by the determiner *il*, which guarantees *Gianni* to be an argument according to the condition in (30). Now the grammaticality of (31a) leaves us to wonder how *Gianni* is licensed to be an argument without being introduced by the determiner *il*. Is it stay in situ or does it raise into the position of the determiner in order to be licensed as an argument? The first hypothesis virtually will leave the D position empty, which is ruled out by condition (30). To obtain a consistent account between the two examples, Longobardi (1994a: 622), opting for the second hypothesis, proposes that *Gianni* in (31a) should move to the D position to be licensed as an argument. Accordingly, he revises principle (30) along the same line as Stowell (1989) as follows:

(32) DP can be an argument, NP cannot.

He (p. 628) further proposes that "NP can only be licensed via a predicative interpretation, in which NP is syntactically predicated of the head selecting it, namely, of a D."

In connection with the present DP analysis, Longobardi observes that there are a host of nominal arguments without any determiners but preceded by a genitive phrase with *'s*, and that these genitive phrases always precede the nominal construction and do not co-occur with determiners. According to Longobardi (p. 629), the genitive phrases occupy the Spec of D and transmit their own features to D through spec-head agreement. This virtually has an effect of filling a D position, which in turn prevents a lexical determiner from occurring in the position. Following Longobardi (1994a), I assume that genitive phrases with *'s* are actually DPs which are base-generated in the Spec of N and they receive a theta-role from their head nouns; otherwise, they are base-generated in some higher Spec of XP such as Spec DP. This assumption gives rise to a distinct description between an inalienable and alienable possessive DP.

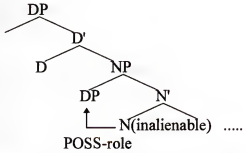
4.3.2.2. Inalienable possessive DP

From our discussion in the previous sections, we can summarize the proposals which have been made in connection with inalienable possessive DPs as follows. First, inalienable nominals can have their own arguments although they are considered to be underived nominals (Tellier 1990, Vergnaud and Zubizarreta 1992). Second, DP should be a maximal projection which subsumes NP as a complement of D, and a possessive phrase should originate within NP (Taraldsen 1990, Longobardi 1994a,b).

Following, basically, the proposals summarized above and in Ura (1996), I propose

that an inalienable noun can give a theta-role to its possessor DP, which is often called a "possessor" role (POSS-role).[5] The inalienable noun discharges its theta-role to its Spec in terms of saturation of argument slots of the lexical head in the sense of Higginbotham (1985) and Zimmermann (1993). Now the possessor DP, as a full-fledged maximal projection, is base-generated in Spec NP to receive a POSS-role discharged from the inalienable noun. The whole picture of theta-role assignment is delineated in the underlying structure of an inalienable possessor construction in (33). Ura (1996: 112) says that POSS-role (I-POSS role for him) resembles AGENT-role in that "it is not necessarily connected with any particular morphological case, though it may have a morphologically realized case form."[6]

(33)



In fact, the possessor is treated as a subject in noun phrases (Szabolcsi 1983, Abney 1987, Zimmermann 1993). Recall, however, that the thematic relationship between a genitive DP and its head noun is quite variable. In the phrase *Rome's destruction*, *Rome* is assigned a THEME-role as the object of the derived noun *destruction*. Even when it raises into the specifier position of NP (I assume), it takes its theta-role with it. The

[5] Ura (1996) alternatively calls this theta-role an "inalienable" possessor (I-POSS) role to differentiate it from an "alienable" possessor (A-POSS) one.

[6] It seems to me that he mentions this with the phenomenon of possessor-raising in mind. As illustrated in section 2, the possessor DP can take nominative case in DNCs (Korean and Japanese) or accusative case in DACs (Korean). Otherwise, it takes genitive case in its base position. This is reminiscent of the subject DP, which takes nominative or accusative as in ECM context.

natural question that arises here is whether the preposed noun is assigned another theta-role like POSS-role. If this is the case, it will virtually be assigned two distinct theta-roles, THEME and POSSESSOR, violating the Theta Criterion. Anderson (1983: 10), building on the basic ideas of Burzio (1981) and Chomsky (1981: 125) concerning theta-role assignment, proposes the following principle to avoid such dual assignment of theta-roles.

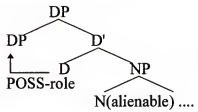
(34) If some NP governed by N is assigned no case, then the N' of which N is the head assigns no theta-role.

By principle (34), the preposed noun *Rome* is assigned no theta-role in Spec NP; however, the possessor of the inalienable which is base-generated in Spec NP is assigned POSS-role, as desired.

4.3.2.3. Alienable possessive DP

According to the classification mentioned above, an alienable noun differs from an inalienable one in that it is not able to take an argument. It follows that the alienable noun does not give any direct theta-role to its possessor (Vergnaud and Zubizarreta 1992, Ura 1996). Given that the possessor of an alienable noun is base-generated at Spec DP, as assumed above, it can be naturally argued that the possessor in question receives a theta-role from D, which is its head. This argumentation is well represented in the following underlying structure of an alienable possessive construction.

(35)



Since the alienable noun does not assign a theta-role to the possessor, the latter is treated as an adjunct with respect to the former (Tellier 1990: 473). This is consistent with our earlier proposed analysis that a nominative-marked possessor DP in a DNC functions as a topic or focus rather than a subject, base-generated in a position adjoined to IP.

4.3.3. Structural vs. Inherent Case

There have been a variety of attempts to analyze the thematic relationship between a genitive possessor DP and its head noun. One of such attempts was the analysis of Chomsky (1970) in terms of preposing objects. As illustrated in subsection 3.1.1, the possessive phrase *Rome's destruction* may undergo the operation of 'preposing' (36) or '*of*-insertion' (37).

(36) a. $[_{NP}\ e\ [_{N'}$ destruction $[_{DP}$ Rome$]]]$
b. $[_{NP}\ [_{DP}$ Rome$_i]\ [_{N'}$ destruction $[_{DP}\ t_i]]]$
c. $[_{NP}\ [_{DP}$ Rome$_i]$'s $[_{N'}$ destruction $[_{DP}\ t_i]]]$

(37) a. $[_{NP}\ [_{N'}$ destruction $[e]\ [_{DP}$ Rome$]]]$
b. $[_{NP}\ [_{N'}$ destruction [of] $[_{DP}$ Rome$]]]$
c. $[_{NP}\ [_{N'}$ destruction $[_{PP}$ of $[_{DP}$ Rome$]]]$

If the underlying object *Rome* in (36a) stays in situ, it will remain caseless, which is in violation of the Case Filter. Hence, it has two options to get case; it moves before its head noun to get genitive case as in (36c), or it remains in its base position with *of* inserted by default as in (37c), getting oblique case like a regular object of a preposition.

What concerns us here is how *Rome* is assigned genitive case in the preposed position. Chomsky (1970) assumes that the genitive is always inserted transformationally. Looking at (36c), we note that *Rome* gets genitive case if it is in Spec NP, governed by N'.

Similarly, the possessor of an inalienable is assigned genitive case in its base-generated NP-Spec position. This was suggested in Chomsky (1981), in which genitive case is assigned in the context of [$_{NP}$ __ X']. Related is the issue whether the prenominal genitive receives "structural" case or "inherent" case. There are two different positions with regard to case assignment of the prenominal genitive. The first position is represented by Chomsky (1986a), and Chomsky and Lasnik (1991). They make a distinction between structural cases and inherent cases. They describe structural cases like nominative and accusative as being assigned solely in terms of S-Structure configuration without reference to theta-role, whereas inherent cases like genitive as being associated with theta-marking. In this vein, they suggest that "inherent" case is assigned by α to NP only if α theta-marks NP. Recall in our preceding discussion that "derived" and "inalienable" nouns were characterized as capable of taking arguments. This characterization suggests that the two types of nouns can give a theta-role to their prenominal genitives: THEME-role to *Rome* in *Rome's destruction* and POSS-role to the possessor of an inalienable noun. If this theta-relation holds between the two, the possessor can be taken to be assigned inherent case by its head noun.

The other position claims that the prenominal genitive is assigned "structural" genitive case (Zimmermann 1993, Ura 1996). Zimmermann (1993: 201) says that case-marking of the possessor (alternatively, 'subject' in his term) should be "structurally" determined. Hence, all phrases capable of occurring in Spec NP, which is adjacent to D, are marked by the case features [+poss] and can be licensed with this case-marking only in the proposed position. In fact, his case theory rests on the notion of government. He

assumes that D governs Spec NP, and thereby licenses the case features of the possessor. For this reason, he claims that the possessor licensed and case-marked by D cannot move to Spec DP.

Ura (1996: 113) also suggests that the genitive case of the possessor occurring in Spec NP is a structural case. Following the basic tenet of the minimalist theory, he argues that this structural case feature should be checked off to converge. He suggests that the possessor moves into Spec DP to have its genitive case feature checked off by D, contrary to the nonmovement analysis of Zimmermann (1993). By the way, it is required to move to the proposed position for feature checking overtly or covertly depending on the strength of D's case feature, since it is stipulated in Chomsky (1995) that no feature checking can take place at the base position of an argument.

The alleged movement of the possessor of an inalienable noun is conditioned by N-raising to D.[7] As discussed earlier, N-raising is observed in some languages like Norwegian (Taraldsen 1990), Italian (Longobardi 1994a), Romanian (Grosu 1988), etc. These enumerated languages and English differ in that the former show overt N-raising, whereas the latter does not. Longobardi (1994a: 640-641), noticing this difference, proposes the following parameter:

(38) N raises to D (by substitution) in the Syntax in Italian but not in English.

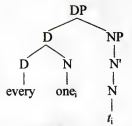
Parameter (38) amounts to saying that N-raising in English, but not in Italian, takes place at LF.[8] If this hypothesis is correct, this parametric difference can be interpreted in terms

[7] N raises to D unless there are no other functional categories in between N and D (for another possibility, see Ritter 1991, Balhorn 1993, Szabolcsi 1994, and Lobeck 1995).

[8] Exceptions to this LF raising are observed with *everyone*, *someone*, *everything*, and *something* in Abney (1987), in which N is shown to raise overtly to D, illustrated as follows (p. 286):

of the strength of feature within the minimalist syntax; some kind of strong R-feature of D in Italian is strong, whereas that in English is weak.[9] Thus, their feature checking involves two different levels of derivation, PF and LF.

Here, I point out some theoretical and empirical problems that Ura (1996) can encounter in arguing for structural genitive case assignment. First, his argument should place its base on the assumption that the head noun of NP is somehow responsible for genitive case by virtue of some kind of spec-head agreement.[10] This is reminiscent of structural nominative case assigned in Spec TP via the same machinery (Chomsky 1981). However, a basic difference obtains between the two; in Ura (1996) genitive case is assigned structurally in connection with theta-role assignment, whereas in Chomsky (1981) nominative case is assigned structurally without reference to theta-role assignment, which constitutes a serious disparity. Another serious disparity found in Ura's genitive case assignment is that the possessor of an alienable noun, unlike that of an inalienable noun, is argued to be assigned an "inherent" genitive case by D. Here a contradictory situation arises; that is, the possessor of an inalienable noun is assigned "structural" case, whereas that of an alienable noun "inherent" case, although the two parts are alike theta-related to their own head noun. Hence, his argument misses a gene-



[9] The term 'R-feature' is drawn from Longobardi (1994a), in which R stands for 'referential'. I will simply follow his term.

[10] This assumption is derived from the fact that the head noun is not able to assign case under government as observed in preposing its argument.

ralization between the two possessor types. In addition, if D assigns inherent genitive case to its Spec in conjunction with theta-role, it should not be responsible for structural case feature checking.

Second, there is no empirical evidence for raising of the possessor into Spec DP. Let us consider the example in (29b), which is repeated here as (39).

(39) bøkene$_i$ hans t_i om syntaks
book$_i$-s-the his t_i about syntax

(39) shows overt N-raising to D, but the possessor pronoun *hans* is shown to remain in situ. This indicates that the possessor pronoun moves in Spec DP at LF to have its case feature checked off only if D is assumed to be able to check its structural case. Then, it must be that in this language R-feature of D (again in the sense of Longobardi 1994a) is strong, while its case feature is weak. Another serious problem in Ura's analysis lies in illegal multiple case feature checking when the possessor raises into higher Spec TP. Recall that the possessor takes nominative case when it raises into the proposed position to form a double nominative construction (DNC). Ura argues that this raising is forced to check the case feature of the possessor. If this is the case, the possessor must have skipped the Spec DP position, since its case feature is erased and deleted once it is checked. This leaves the case feature of D unchecked, causing the derivation to crash.

From the preceding discussion, I, basically adopting Chomsky's ideas, propose that the possessors of an inalienable and alienable noun are alike assigned "inherent" genitive case from their head noun in connection with a theta-role. Under my proposals, the possessors of the two types of nouns are differentiated in terms of theta-role, but not in terms of case. In addition, it should be noted that inherent genitive case is *optionally*

assigned to the possessor. If it is assigned, no other case is assigned. If it is not assigned, on the other hand, the possessor is assigned nominative case by default in the present analysis, but nominative case by T in Ura's analysis. This has some consequences for different aspects of possessor-raising in terms of feature checking.

4.4. Multiple Feature Checking in Possessor Raising

In the preceding discussion, we have established that the possessor of an inalienable noun and that of an alienable noun are base-generated in Spec NP and Spec DP respectively to receive a POSS-role from their head noun. We have also established that they are alike assigned inherent genitive case from their head noun in connection with a theta-role. As mentioned earlier, the possessor of the two types of nouns can take nominative case to form a DNC. I claimed that this is made to be possible by virtue of our assumption that inherent genitive case is "optionally" assigned to the possessor. In this section, I will delve into the issue as to how two nominative-marked DPs in a single clause are engaged in the derivation of a DNC in terms of feature checking.

4.4.1. Multiple Specs and Unforced Violability

The minimalist theory is characterized in part by the fact that its phrase structure, unlike the conventional X-bar theory, permits multiple Specs to be projected by a single head. Following Ura (1994b), I will assume as follows:

A. Multiple Specs of a head H are possible only if H has multiple sets of formal features (FFs).
B. The possibility of H to have multiple sets of FFs is determined by a (lexical) parameter in a particular language.

This parameter extends to IPCs and APCs within a particular language, and the parameter is set in a way that T is allowed to have multiple sets of FFs in the former, but not in the latter.

4.4.1.1. IPCs: Multiple specs

As mentioned above, the functional head T in IPCs is allowed to have multiple Specs. It follows that T of an IPC is said to have multiple sets of FFs to be checked in its multiple Specs. Given that a subject DP raises into a Spec of T to have its features checked, the fact that T of a single clause has double Specs indicates that the clause has two subjects with respect to a single predicate, which is a typical example of a DNC.[11] In our early discussion, we have established that DNCs are derived from IPCs by means of possessor-raising. In this case, the raised possessor with a nominative case marker can function as a subject, resulting in a Double Subject Construction.

The subjecthood of the possessor of an inalienable noun can be attested in subject-honorification. Consider the following paradigm.

(40) a. ?Kim-sensayng-nim-*euy* kho-*ka* khu-*si*-ta.
teacher-HON-G nose-N big-HON-DEC
'Mr. Kim's nose is big'

b. Kim-sensayng-nim-*i* kho-*ka* khu-*si*-ta.
N N
'Mr. Kim has a big nose'

(40b) is assumed to be derived from (40a) by possessor-raising. In (40a) *kho* 'nose' is a structural subject which is responsible for triggering subject-honorification. Although it is

[11] A DNC can be also called a Double Subject Construction (DSC) if the possessor DP with nominative case functions as SUBJ. It is assumed in this dissertation that the possessor in fact functions as SUBJ when it raises from an IPC, but not otherwise.

not a respectable object in a strict sense, the sentence still sounds good. This can be attributed to our early assumption that honorification in Korean is in fact a matter of "relatedness," as discussed in chapter 2. That is to say, 'nose' is honored due to its relatedness to its respectable possessor 'teacher'. In this case, honorification is triggered by 'teacher' in an indirect way. If the respectable possessor is raised and takes nominative case, however, the sentence sounds perfect. This indicates that it has been raised into a subject position and thus triggers honorification directly.

Another indication that the raised possessor functions as a subject comes from reflexivization. Consider the following paradigm.

(41) a. *ku inpu$_i$-euy phal-i *caki$_i$*-euy cakepcang-ese ppi-ess-ta.
that laborer-G arm-N self-G work place-at be sprained-PAST-DEC
'The laborer's arm was sprained at self's work place'

b. ku inpu$_i$-ka *caki$_i$*-euy cakepcang-ese phal-i ppi-ess-ta.
that laborer-N self-G work place-at arm-N be sprained-PAST-DEC
'The laborer had his arm be sprained at self's work place'

As shown in (41b), once the possessor 'laborer' is raised to a subject position, it can c-command and bind the reflexive pronoun.

From these two facts, I argue that the possessor of an inalienable noun in fact raises into a subject position in order to function as a subject. Hence, it can be concluded that T of an IPC may project two (or multiple) Specs so that two (or multiple) subject DPs can check their features in those Specs. In this regard, possessor-raising and multiple Specs are said to be two sides of a unified coin.

4.4.1.2. APCs: No multiple specs

In contrast to IPCs, APCs (alienable possession constructions) do not involve possessor-raising, and thereby no multiple Specs. Hence, in a DNC configuration the nominative-marked possessor of an alienable noun is assumed to be base-generated in a position adjoined to IP. Being base-generated in such a position, the nominative-marked possessor is treated as a focus, not a grammatical subject. (I. Yang 1972, B. Park 1981, Yim 1985, J-H. Yoon 1987, Y. Kim 1990). In such a DNC, T projects only one Spec, into which the rightmost nominative DP, which is the only subject in the clause, raises to have its features checked, and then the leftmost nominative DP is adjoined to IP as a focus. Its nominative case-marking is the result of the operation of default case assignment.[12]

Ura (1996: 103) also argues that the leftmost nominative DP in a DNC, which is considered to be an alienable possessor with respect to the possessed noun, is base-generated in a position adjoined to IP. Under his case theory in which nominative case features are checked in a Spec of T, the base-generated nominative DP poses a serious problem because it will have nowhere to go to have its case feature checked unless an extra Spec of T is created. Under the default case strategy which is adopted in this study, however, it poses no problem because it has no case feature to be checked until the syntax and it obtains such a feature by default at the PF interface to satisfy the Case Filter.

[12] We can find a parallel instance of case assignment in Arabic. Mohammad (1988: 234-5) argues that base-generated topics in Arabic are assigned nominative case by default.

4.4.2. Possessor Raising into Spec of T

As noted repeatedly above, the possessor of an inalienable noun shows case alternation between genitive and nominative, as illustrated in (42).

(42) a. Eunbee-*euy* son-*i* yeppu-ta.
G hand-N pretty-DEC
'Eunbee's hand is pretty'

b. Eunbee-*ka* son-*i* yeppu-ta.
N N
'same meaning as (42a)'

It has been argued that the possessor *Eunbee* is base-generated in Spec NP to receive a POSS-role from its head noun *son* in both examples. In (42a), the whole possessive DP is nominative case-marked, and this whole DP will move into a Spec of T for feature checking. However, (42b) provides a totally different picture of derivation. As discussed above, if the possessor *Eunbee* takes a nominative case marker, it implies that it has already raised to a higher position, functioning as another subject of the predicate. Let us consider a stage where the whole possessive DP and T are merged to *v*P.

(43) .... [$_{vP}$ [$_{DP}$ [$_{NP}$ Eunbee [$_{N'}$ hand]]] [$_{VP}$ pretty] *v*] T ...

The possessor *Eunbee* in (42b) is assigned no case according to our earlier assumption that inherent genitive case is optionally assigned to the possessor of an inalienable noun. Now in (43) T is assumed to be strong and able to project two Specs. Due to the strong D-feature of T, T attracts a DP nearby to check its strong D(EPP)-feature. First, the whole possessive DP, [$_{DP}$ [$_{NP}$ Eunbee [$_{N'}$ hand]]], is attracted into the inner Spec of T because it is closer to the position than the possessor DP in the sense of 'shallowness'.[13]

[13] See Oka (1993a) for 'shallowness' and Chomsky (1995) and Ura (1996) for 'closeness' defined by means of 'shallowness'.

(44) $[_{TP}$ __ $[_{T'}$ $[_{DP}$ $[_{NP}$ Eunbee $[_{N'}$ hand]]]]$_i$ $[_{vP}$ t_i $[_{VP}$ pretty] v] T]]

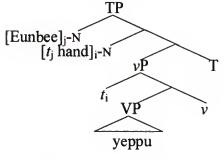
At this stage in (44) the outer Spec of T is empty and is waiting to be filled by the possessor *Eunbee*. Then, it finally raises into the position.

(45) $[_{TP}$ $[_{DP}$ Eunbee]$_j$ $[_{T'}$ $[_{DP}$ $[_{NP}$ t_j $[_{N'}$ hand]]]]$_i$ $[_{vP}$ t_i $[_{VP}$ pretty] v] T]]

As shown in (45), the possessor *Eunbee* is extracted out of the possessive DP and then raises into the outer Spec of T to check the strong D-feature of T. As the possessor checks the D-feature of T, it becomes a full-fledged subject in the sentence.

The whole derivation of (42b) is illustrated in the tree structure (46). Under the case theory in which nominative case feature is checked in a Spec of T, it is clear and fully motivated why the possessor DP *Eunbee* raises into the outer Spec of T in (46); it does so to check the case and the D-feature of T.

(46)



Under our default case system, however, it might be somewhat puzzling why the possessor DP should always raise into the proposed position. Note that under the default case system the whole DP [Eunbee hand] and the possessor DP [Eunbee] have no case features in the syntax and T has no intrinsic ability to check case features when it is selected by the numeration. Note also that the D-feature of a noun is in nature a categorial one and thus is not erased even after checking. It is thus naturally predicted from these two facts that the whole DP can participate in D-feature checking twice; it first raises into

the inner Spec of T and then further raises into the outer Spec of T to check the strong D-feature of T. Alternatively, the possessor DP raises into the outer Spec of T to check the feature in question, which is a preliminary condition to form a Double Subject Construction (DSC).[14] Then, how is the possessor DP always ensured to raise into the position? The answer to this intriguing question arising in our default case system can be sought from the machinery to determine grammatical functions in a minimalist approach. With regard to this, Ura (1996: 25) notes:

> Now suppose that if an argument γ has a feature-checking relation with Infl, then γ assumes the grammatical function SUBJECT. Then, in a language that allows Infl to enter into multiple feature-checking relations with arguments, there may be multiple subjects in a clause.

According to these remarks, the possessor DP can be licensed as SUBJ by entering into a feature-checking relation with T. More specifically, the possessor DP is licensed as SUBJ by raising into the outer Spec of T and checking its strong D-feature.[15] In fact, when the possessor is nominative-marked, it functions as a subject, as discussed above, with respect to honorification and reflexivization. Hence, it must be that the possessor DP in a DSC, not the whole possessive DP, always raises into the outer Spec of T to be licensed as SUBJ by virtue of checking the strong D-feature of T.

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[14] It should be noted from this result that a DNC (double nominative construction) does not necessarily constitute a DSC (double subject construction); if the nominative-marked possessor remains within the whole possessive DP, it constitutes a DNC, but not a DSC.

[15] In parallel to SUBJ, an argument can be said to be licensed as OBJ by entering into a feature-checking relation with *v*. Empirical evidence in favor of this claim will be found in ECM constructions and Dative Subject Constructions, which will be discussed in chapter 5.

4.4.3. Double Accusative Constructions (DACs)

4.4.3.1. Alienable DACs and default case

As mentioned above, Korean allows DACs (double accusative construction), whereas Japanese does not. This can be expressed as a parametric difference between the two languages in terms of Procrastinate. That is, *v* in Korean tolerates one (or more than one) unforced violation of Procrastinate, whereas *v* in Japanese does not tolerate any violation of Procrastinate. Korean is thus said to conform to Baker's (1988: 274) observation that "possessor raising should only be allowed if the raised NP is the possessor of a transitive verb's direct object, or of an unaccusative verb's surface subject." DACs in Korean are characterized by the unique relation between two accusative-marked DPs, as exemplified in (47).

(47) a. na-nun talk-*ul* tali-*lul* mek-ess-ta.
I-TOP chicken-A leg-A eat-PAST-DEC
'I ate the chicken's leg'

b. *Chelsu-nun Suni-*lul* chayk-*ul* cap-ass-ta.
TOP A book-A hold-PAST-DEC
'Chelsu held Suni's book'

Recall that two nominative-marked DPs in DNCs can be either in an inalienable relation or in an alienable relation. On the contrary, two accusative-marked DPs in DACs, as shown in (47a), should be exclusively in an inalienable relation. Why does such an asymmetry obtain between the subject and the object? A plausible solution may be attributed to the default case system.

Recall that the nominative-marked inalienable possessor raises into the outer Spec of T to check the strong D-feature of T, whereas the nominative-marked alienable possessor

is assumed to be base-generated in a position adjoined to IP, obtaining a nominative case feature at PF by default to satisfy the Case Filter. In an analogous way, one may hypothesize that the accusative-marked alienable possessor can be base-generated adjoined to a kind of *v'* category to form a DAC, as delineated in (48), where DP1 and DP2 represent the alienable possessor and possessed noun respectively.

(48) ..... $[_{vP}$ ... $[_{v}$ DP1-*A* $[_{v}$ $DP2_{i}$-*A* $[_{VP}$ t_{i} V] *v*]]...] ...

However, this hypothesis is untenable on both conceptual and empirical grounds. First, the accusative-marked alienable possessor empirically never occurs in a DAC, as shown in (47b). Second, if it is base-generated in the proposed position, there is no way to check its (accusative) case feature, since *v* in this case allows only one Spec.[16] This is where our argument for default case gains an independent support.

4.4.3.2. Possessor-raising in DACs

The derivation of DACs receives the same analysis with that of (inalienable) DNCs in terms of possessor-raising. The possessor DP in (47a) *chicken* is base-generated with an accusative case feature in Spec NP, receiving a POSS-role from its head noun *leg*.[17]

(49) ..... $[_{vP}$ ... $[_{v}$ __ $[_{v}$ __ $[_{VP}$ $[_{DP}$ $[_{NP}$ chicken $[_{N'}$ leg]]] V] *v*]]...] ...

By definition, *v* in a DAC like (47a) may project two Specs. The light verb *v* in Korean, as assumed earlier, is strong enough, and thus it attracts its direct object DP into its Spec at overt syntax. The whole possessive DP $[_{DP}$ chicken leg] is first attracted by *v* into its

[16] Since accusative case is not a default in Korean, its case feature exists in the lexicon. Hence, the accusative case feature, unlike the default nominative case feature, should be checked in the syntax. Otherwise, the derivation will crash.

[17] As assumed earlier, inherent genitive case is optionally assigned to the possessor DP. This phenomenon is further found in dative subject constructions, which will be illustrated in chapter 5 in detail.

inner Spec in this double Spec configuration so as to check its strong D-feature and (accusative) case feature.[18]

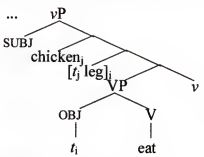
(50) ..... [$_{vP}$ ... [$_{v'}$ __ [$_{v}$ [$_{DP}$ [$_{NP}$ chicken [$_{N'}$ leg]]]]$_i$ [$_{VP}$ t_i V] v]]...] ...

The same features should be checked in the outer Spec of v, which is done by the possessor DP *chicken*, as illustrated in (51).

(51) ..... [$_{vP}$ ... [$_{v'}$ [$_{DP}$ chicken$_j$] [$_{v}$ [$_{DP}$ [$_{NP}$ t_j [$_{N'}$ leg]]]$_i$ [$_{VP}$ t_i V] v]]...] ...

The whole derivation of (47a) is depicted in (52).

(52)



Unlike DNCs discussed above, the whole possessive DP in (51) cannot further raise into the outer Spec of v for feature checking, since its case feature has been already checked in the inner Spec of v and is no longer available for the outer Spec of v. It is the possessor DP that is attracted into the outer Spec of v to check the D- and case feature of v.

4.4.4. Possessor Raising and Grammatical Function Changing

4.4.4.1. Baker's noun incorporation

As well-documented in Baker (1988), "grammatical function (GF) changing" is induced by various movement transformations. Possessor-raising is readily considered to

[18] At this point, it is not clear whether the case feature of v in Korean is strong or not. Following Chomsky (1995), I assume that the case feature of v is checked as a free rider when a DP is attracted by them to check its strong D-feature.

be an instance of such transformations, since by this operation the possessor of an argument NP comes to behave like a subject (DNC) or an object (DAC). Baker (1988: 268-277) examines a variety of examples of possessor-raising in such diverse languages as Kinyarwanda (Kimenyi 1980), Chechewa, Chamorro (Gibson 1980, Crain 1979), Western Muskogean languages (Davies 1981), etc. All these languages show the phenomenon of possessor-raising, in which the possessor of a direct object of a verb, as Kimeny and many others claim, moves out of its host DP to be licensed as the direct object of a clause. Its objecthood is evidenced by the following properties that Baker (p. 271) enumerates: "it is immediately postverbal in canonical word order; it triggers object agreement; it may pro-drop, reflexivize, or become the subject of a passive."

The natural question that Baker (p. 273) raises with regard to this phenomenon is whether "the possessor actually raises by moving out of the possessive NP to become a full-fledged [NP, VP] direct object." This possibility is, however, denied by Baker due to the fact that such a derivation results in a violation of the Projection Principle and the Theta Criterion (Chomsky 1981, Uniformity of Theta Assignment Hypothesis in Baker 1988).[19] Baker raises another possibility that the possessor is base-generated in the direct object position of the verb, in which case the two conditions will be satisfied. However, this derivation, as Baker notes, will not be able to capture a semantic relationship that holds between the possessor and its possessed noun. As an optimal way out of this problem, Baker comes up with an analysis in which the possessor is somehow governed and assigned case by the verb, which is motivated on conceptual grounds to satisfy the above-

[19] Possessor-raising in question precisely results in a 'raising-to-object' configuration, which is discussed in Chomsky (1981). This movement is barred in Chomsky (1981), since it involves movement to a theta-position.

mentioned conditions. Under the case theories embodied in GB, in which "government" played a key role in case assignment, the problem that naturally arises concerning this analysis is how the verb possibly governs the possessor within NP in its D-structure, since the possessive DP constitutes a barrier in the sense of Chomsky (1986b). Baker seeks the key solution to this problem from what he calls Noun Incorporation (NI), as exemplified in (53).[20]

(53) Southern Tiwa (Baker 1988: 273)
a. **Kuchi*-n kam-thã-ban.
pig-SUF 1sS/2sO/B-find-PAST
'I found your pigs'

b. Kam-*kuchi*-thã-ban.
1sS/2sO/B-pig-find-PAST
'I found your pigs'

The head noun 'pig' in (53b) is shown to be incorporated into the verb. According to Baker, once the head noun is incorporated into the verb, it does not constitute a barrier in the sense of Chomsky (1986b), which virtually enables the verb to govern into the possessor noun. A relevant question to Baker's NI is how the incorporated head noun is assigned case. Baker (p. 106-111) stipulates that incorporated nouns do not need case. Once the head noun is incorporated into the verb, they form a complex predicate, which in turn governs and assigns case to the stranded possessor.

[20] The idea of government of the possessor by the verb is reflected in what he calls the Government Transparency Corollary (GTC), stated as follows (p. 64):
(i) A lexical category which has an item incorporated into it governs everything which the incorporated item governed in its original structural position.

4.4.4.2. Multiple feature checking

As discussed above, possessor-raising within the GB theory poses a serious theoretical problem with respect to the Projection Principle and the Theta Criterion if it actually raises the possessor into a higher position like SUBJ or OBJ. To avoid this problem, Baker stipulates that the possessor in fact stays in situ, receiving a theta-role from its head noun and case from the verb, which is precisely an ECM configuration. This case assignment is made possible by the machinery of NI, which virtually gives rise to a possessor-raising effect.

This subsection attempts to provide a more principled account of possessor-raising from a perspective of the minimalist theory. As opposed to the case theory in GB, the case theory adumbrated in the minimalist theory is not concerned with how DPs are assigned case. Rather, it is concerned with how case features appearing on the DPs are checked during the derivation of a sentence. If they are checked at the right place at the right time (PF or LF), the sentence converges; otherwise, it crashes.

In this vein, possessor-raising receives a different account in terms of feature checking. Within this account, the (inalienable) possessor is base-generated in Spec NP, receiving a theta-role from its head noun, that is, the possessed noun. If it is assigned an inherent genitive case feature, it stays in its base position and behaves like a possessive modifier to the possessed noun. If it is not assigned any case feature in the lexicon, however, it raises into the outer Spec of T to check its strong D-feature, functioning as a subject, and is assigned a nominative case feature by default at the PF interface to satisfy the Case Filter. If the possessor is assigned an accusative case feature when it is selected by a

numeration, on the other hand, it raises into the outer Spec of *v* to check its strong D- and case feature, functioning as an object.

Under the present analysis, the (inalienable) possessor is assumed to overtly raise to behave like a subject or object. Consider the following paradigm.

(54) Korean
a. na-nun emeni-*lul* phal-*ul* cap-ass-ta.[21]
I-TOP mother-A arm-A hold-PAST-DEC
'I held (my) mother's arm'

b. emeni-*ka* phal-*i* cap-hi-ess-ta.
mother-N arm-N hold-PASS-PAST-DEC
'(My) mother's hand was held'

In (54a), the possessor 'mother' is raised by possessor-raising to become the object of the clause along with the original object 'arm'. Due to the dual objects, (54a) is often called a Double Object Construction. Its objecthood is attested in (54b), in which it becomes a structural subject in the passive.

Under the present analysis within the minimalist syntax, overt possessor-raising poses no theoretical problem with respect to the Projection Principle and the Theta Criterion, since the possessor does not raise into a position where a theta-role is assigned. Rather, the possessor raises into a specifier position of a functional category like T or *v*, which is, in the minimalist syntax, treated as an A-position, but not a position where a theta-role is assigned. It follows from this that overt raising of the possessor does not in principle violate the conditions in question.

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[21] According to Baker's NI, it is expected that the possessed noun *phal* 'arm' is incorporated into the verb to guarantee case assignment of the possessor by the complex predicate consisting of *phal* and the verb *cap* 'hold'. As shown in (54a), however, the possessed noun is not necessarily incorporated into the verb, making case assignment to the two accusative-marked nouns puzzling within Baker's analysis.

4.5. ECM Movement

This section illustrates the aspects of ECM movement of the possessor and the possessed noun in order to show that our default case analysis is more suitable for the account of such aspects than the analysis in which T is responsible for nominative case feature checking. In what follows, I will provide an account of ECM movement on a par with possessor-raising by means of multiple feature checking and superraising in the sense of Ura (1994a, 1996).

4.5.1. Possessor DP

The possessor DP *Suni* with an accusative case feature in (55b) can be ECMed by raising into the Spec of the matrix *v* to check its features. Due to the finiteness of the embedded clause, its ECM raising is puzzling under the case theory in which T is responsible for a nominative case feature.

(55) a. na-nun [$_{CP}$ Suni-ka elkul-i yeppu-tako] sayngkakha-n-ta.
I-TOP N face-N pretty-COMP think-PRES-DEC
'I think that Suni's face is pretty'

b. na-nun Suni$_i$-*lul* [$_{CP}$ t_i elkul-i yeppu-tako] sayngkakha-n-ta.
I-TOP A face-N pretty-COMP think-PRES-DEC
'same meaning as (55a)'

As shown above, the ECM subject *Suni* shows case alternation between nominative and accusative. As assumed throughout the dissertation, the nominative case feature on the ECM subject *Suni* is default (55a); the accusative case feature on it, on the other hand, is assigned in the lexicon, and thus it should be checked in the syntax (55b). The ECM subject as well as the direct object of a verb is assumed to raise at overt syntax in Korean.

Hence, the derivation of (55b) will look like:

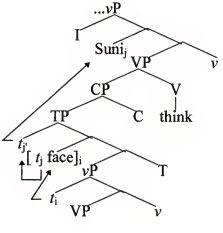
(56) ... [$_{vP}$ I [$_{v}$ Suni$_j$ [$_{VP}$ [$_{CP}$ [$_{TP}$ t_j [$_{T'}$ [$_{DP}$ t_j face]$_i$ [$_{vP}$ t_i [$_{VP}$ pretty] v] T]] C] think] v]] ...

In passing, it might be possible to conjecture that the embedded clause creates only a single Spec of T so that the accusative-marked possessor *Suni* can straightforwardly raise into the Spec of *v*, illustrated as follows:

(57) ... [$_{vP}$ I [$_{v}$ Suni$_j$ [$_{VP}$ [$_{CP}$ [$_{TP}$ [$_{DP}$ t_j face]$_i$ [$_{vP}$ t_i [$_{VP}$ pretty] v] T] C] think] v]] ...

The derivation in either (56) or (57) will not cause any theoretical problem in terms of feature checking. To be consistent with the derivation in (55a), which involves possessor-raising, I take (56) to be a canonical derivation of the ECM construction (55b). The derivation in (56), therefore, suggests that the possessor *Suni* first raises into the outer Spec of the embedded T to check its strong D-feature and then it further raises into the Spec of the matrix *v* to check its D- and case feature. The whole derivation can be illustrated in (58). Under the analysis in which T is responsible for nominative case feature checking, the movement of the possessor into the outer Spec of T by possessor-raising will be problematic because the possessor with an accusative case feature cannot check the nominative case feature of T.

(58)



This will leave the case feature of T unchecked, causing the derivation to crash. Under our default case system, however, the problem in question will not arise due to the inability of T to check a nominative case feature of DP. Our default case system extends its explanatory power to the ECM movement of the possessed noun as well, which will be described shortly.

4.5.2. Possessed Noun

In contrast to the possessor, the possessed noun *elkul* 'face' alone is not allowed to be ECMed as shown in (59a). ECM is allowed only when it moves along with the possessor (59b).

(59) a. ?* na-nun elkul$_i$-*ul* [$_{CP}$ Suni-ka t_i yeppu-tako] sayngkakha-n-ta.
I-TOP face-A N pretty-COMP think-PRES-DEC
'I think that Suni's face is pretty'

b. na-nun [$_{DP}$ Suni-euy elkul]$_i$-*ul* [$_{CP}$ t_i yeppu-tako] sayngkakha-n-ta.
I-TOP G face-A pretty-COMP think-PRES-DEC
'same meaning as (59a)'

The ECM movement of the whole possessive DP in (59b) is quite straightforward; it first raises into the Spec of T in the embedded clause to check its strong D-feature and then raises further into the Spec of the matrix *v* to check its accusative case feature.

(60) ...[$_{vP}$ I [$_{v}$ [$_{DP}$ Suni face]$_i$ [$_{VP}$ [$_{CP}$ [$_{TP}$ t_i [$_{vP}$ t_i [$_{VP}$ pretty] *v*] T] C] think(ECM)] *v*]]..

The derivation of (59a) is somewhat complicated in that possessor-raising is involved in it. Let us consider, step by step, the derivation of (59a). First, consider the stage where the embedded *v*P is created, T is inserted by Merge, and its inner Spec is projected:

(61) ... [$_{TP}$ __ [$_{vP}$ [$_{DP}$ Suni face] [$_{VP}$ pretty] *v*] T] ...

The strong D-feature of T will attract the whole possessive DP [$_{DP}$ Suni face], not the possessor alone, by virtue of 'shallowness' in the sense of Oka (1993a,b), Chomsky (1995), and Ura (1996). The possessive DP will raise into the Spec of T to check the strong D-feature of T, as delineated in (62).

(62) ... [$_{TP}$ [$_{DP}$ Suni face]$_i$ [$_{vP}$ t_i [$_{VP}$ pretty] v] T] ...

Since T in Korean is basically assumed to tolerate any number of unforced violations of Procrastinate, it is able to project another Spec, into which the possessor *Suni* raises by possessor-raising. Then, the derivation will look like:

(63) ... [$_{TP}$ Suni$_j$ [$_{T'}$ [$_{DP}$ t_j face]$_i$ [$_{vP}$ t_i [$_{VP}$ pretty] v] T]] ...

To this derivation is attached the ECM verb *think* by Merge. At this point, it is important to note that the possessor *Suni* and the possessive DP containing *face* are in the same minimal domain of T, and hence they are equidistant from the matrix ECM verb. Either of them can be attracted to the Spec of v without violating the Minimal Link Condition. It is the possessive DP [$_{DP}$ t_j face], however, which is attracted to the position in question because it has an accusative case feature which can enter into a checking relation with v.

(64) ...[$_{vP}$ I [$_{v'}$ [$_{DP}$ t_j face]$_i$ [$_{VP}$ [$_{CP}$ [$_{TP}$ Suni$_j$ [$_{T'}$ t_i [$_{vP}$ t_i [$_{VP}$ pretty] v] T]] C] think] v]]..

We notice a serious theoretical problem in (64); that is, the trace of the possessor *Suni*, t_j, has moved beyond its antecedent, violating the ECP; the trace is not antecedent-governed by *Suni*. To solve this problem, one might suppose that only the possessed noun *face* can raise, leaving the trace of the possessor left within the possessive DP [$_{DP}$ t_j face]. However, this hypothesis is rejected by the assumption in Chomsky (1995) that move-

ment into a specifier position is "substitution," not "adjunction," which requires a whole constituent DP.[22]

4.5.3. Alienable Possessor

As assumed throughout the dissertation, the alienable possessor with nominative case is base-generated in a position adjoined to IP. In this position, it functions as a topic or focus. Consider the following paradigm of Korean examples:

(65) a. na-nun Eunbee-*lul* [$_{CP}$ t_i kabang-i yeppu-tako] sayngkakha-n-ta.
I-TOP A bag-N pretty-COMP think-PRES-DEC
'I think that Eunbee's bag is pretty'

b. * na-nun kabang$_i$-*ul* [$_{CP}$ Eunbee-ka t_i yeppu-tako] sayngkakha-n-ta.
I-TOP bag-A N pretty-COMP think-PRES-DEC
'same meaning as (65a)'

c. na-nun [$_{DP}$ Eunbee-euy kabang]$_i$-*ul* [$_{CP}$ t_i yeppu-tako] sayngkakha-n-ta.
I-TOP G bag-A pretty-COMP think-PRES-DEC
'same meaning as (65a)'

The possessor base-generated in a TP-adjoined position can be ECMed as shown in (65a). In contrast, ECM is not possible with the possessed noun (65b) unless it is ECMed along with its genitive possessor (65c). To illustrate, suppose that the alienable possessor *Eunbee* is adjoined to TP(IP), as shown in (66):

(66) ... [$_{TP}$ Eunbee [$_{TP}$ bag$_i$ [$_{vP}$ t_i [$_{vP}$ pretty] *v*] T]] ...

Since *Eunbee* is base-generated in the position adjoined to TP, it does not receive a POSS-role from D. Hence, the possessive-relation is not established syntactically between

[22] The description of movement is twofold in Chomsky (1995): adjunction and substitution. Adjunction involves movement of a head X^0, the bar-level of which is to be zero. Substitution, on the other hand, involves movement of a whole syntactic constituent X". The possessed noun in (59a) moves into the specifier position of *v*, which is treated as substitution, and thus its ECM movement should actually involve movement of the whole possessive DP containing the trace of the raised possessor.

Eunbee and *bag*, and thus *Eunbee* is not always interpreted as a person who has *bag* in her possession.[23]

It is important to discuss here whether the TP-adjoined position is an A- or A'-position. First of all, Chomsky (1995: 196) distinguishes between a specifier position and an adjoined one. He refers to the former as "narrowly" L-related and the latter as "broadly" L-related. He treats a specifier position to be an A-position due to its being "narrowly" L-related to a head with an L-feature. However, he is not determined about an adjoined position between A- and A'-position. For reasons to be made clear, I argue that a base-generated adjoined position like *Eunbee* in (66), unlike a "scrambled" one, should be treated as an A-position. When it comes to "scrambling," I assume that it involves A'-movement, basically following the proposal made by Kuroda (1988), Mahajan (1990), Saito (1985, 1989, 1992), and Kikuchi, Oishi, and Yusa (1994).[24]

My argument that the base-generated adjoined position should be treated as an A-position draws on the fact that *Eunbee* should be base-generated in a position where it is assigned a theta-role because it is an argument (topic or focus). Baker (1995) also asserts that arguments can be base-generated at a position adjoined to some maximal projection, a position which is remote from the positions where they are expected to be assigned their theta-role. Kuno (1973) argues that a topic is base-generated in the sentence-initial position, and it is in the "aboutness relation" with the rest of the sentence. In the same line

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[23] Instead, I assume that the possessive-relation between *Suni* and *bag* holds in discourse or pragmatics.

[24] Saito (1992) distinguish scrambling in two different levels by saying that every instance of scrambling is A'-movement at S-structure, but so-called "short scrambling" can be A-movement at LF by means of V-raising in LF. In a similar vein, Kikuchi, Oishi and Yusa (1994: 142) suggest that "even short distance scrambling is an instance of A'-movement in terms of derivation, but the scrambled phrases can be in an A-position at LF in terms of representation." I will not go into detail concerning LF movement because our discussion here concerns ECM raising, which is argued to occur at overt syntax.

with Kuno, *Eunbee* is treated as a topic and is licensed via the "aboutness relation." Based on these facts, I take a topic adjoined to TP(IP) to be an A-position. Under this analysis, *Eunbee* in (66) is said to be in an A-position, and naturally its ECM movement to the Spec of the matrix *v* yields a chain of A-A configuration, since its landing site is a specifier position, which is treated as an A-position.

Let us turn to another ECM derivation (65b), in which the possessed noun is ECMed. I suggest that (65b) violates the MLC because the possessed noun *bag* is ECMed across the possessor. As shown in (66), the two nouns are not equidistant from the Spec of *v*, since they are not in the same minimal domain of T. More specifically, the possessor is adjoined to TP, not in the Spec position of T. In this configuration it is the possessor *Eunbee*, not the possessed noun *bag*, which should be attracted to the Spec of *v* due to being closer to the position. The projection of an extra Spec of T is helpless here, since it is still under the adjoined possessor and thus it cannot function as an escape hatch, the idea of which has been alluded in our discussion of superraising in chapter 3.

4.6. Conclusion

In this chapter, I have motivated and defended the hypothesis that possessor-raising is possible only if the possessor-relation is an inalienable one. To illustrate, I have distinguished between an inalienable and alienable one in terms of various grammatical aspects. First of all, the inalienable and the alienable possessive DP have a different internal structure. The inalienable noun has its own argument, which is base-generated in Spec NP to receive a POSS-role from its head noun. The alienable noun, on the other

hand, lacks an argument; its possessor is base-generated in Spec DP to receive a (universal) POSS-role from D. The possessor of both nouns is assigned inherent genitive case. In particular, the possessor of the inalienable noun is optionally assigned case: genitive or no case.

Second, the inalienable and the alienable noun exhibit a different aspect in terms of multiple Specs. T in an IPC (inalienable possession construction) is allowed to project multiple Specs, whereas T in an APC (alienable possession construction) is not. This asymmetry has further consequences for possessor-raising. The possessor of the inalienable noun can undergo possessor-raising when it optionally assigned no case or accusative case. When it is assigned no case, it raises into the outer Spec of T to check its strong D-feature and is assigned nominative case by default later at PF; if it is assigned accusative case in the lexicon, it should be checked in the outer Spec of *v*. In contrast, the possessor of the alienable noun cannot undergo the same operation due to the lack of the outer Spec of T; rather, it is base-generated adjoined to TP(IP) and assigned nominative case by the default case strategy.

Third, our hypothesis concerning possessor-raising proves to be crucial for the account of ECM raising of the possessor and the possessed noun. The possessor of the inalienable noun is allowed to undergo ECM raising. It raises into the outer Spec of the embedded T and then into the Spec of the matrix *v* without violating the Last Resort Condition of the definition *Attract/Move* and the Minimal Link Condition. The inalienable noun is prohibited from ECM raising due to a violation of the ECP, since the possessive DP containing the trace of the possessor moves across it.

CHAPTER 5
DATIVE SUBJECT CONSTRUCTIONS

5.1. Introduction

Belletti and Rizzi (1988: 291) say that "verbs expressing psychological states have a uniform theta-grid, involving an EXPERIENCER (hereafter EXP), the individual experiencing the mental state, and a THEME, the content or object of the mental state." Such verbs are conventionally called "psych-verbs." The EXP argument and the THEME argument generally have been referred to as a subject and an object respectively in the literature (Sridhar 1979, Belletti and Rizzi 1988, Grimshaw 1990, Ura 1996). In particular, the EXP subject, with few exceptions, appears in a clause with dative case.[1]

Accordingly, I use Dative Subject Construction (DSC) to refer to a construction in which the EXP subject surfaces with dative case. DSC occurs with a limited set of predicates such as psych-verbs (1), existential verbs (2), process verbs (3), etc.

(1) Japanese (Ura 1996: 320, from Sugioka 1985: 156)
Taroo-ni hebi-ga kowa-i.
D snake-N fearful-PRES
'Taroo is fearful of snake'

(2) Tamil (Ura 1996: 355, from Lehmann 1993: pp. 189f)
Kumaar-ukku irantu paiyan-kal-Ø iru-kkir-aarkal.
Kumar-D two boy-PL-N be-PRES-3.PL.EP
'Kumar has two boys'

[1] As for the dative case that the EXP subject bears, Kachru (1990) points out that the dative NP in DSC behaves like an ordinary subject in controlling reflexivization in Hindi-Urdu, while, at the same time, the dative is semantically a "recipient." As will be noted in later sections, the dative case on the dative subject is sometimes converted into nominative case in Korean and Japanese.

(3) Korean
mom-ey hulk-i mutess-ta.
body-D dirt-N be-stained-DEC
'(My) body is stained with dirt'

The examples in (1)-(3) all constitute DSC in that the EXP subject surfaces with dative case.

DSCs have attracted a lot of attention from researchers due to the fact that they show some interesting aspects of case marking in conjunction with theta-role assignment. Following Grimshaw's (1990) thematic hierarchy, formulated in (4), I argue that a DSC is assumed, in its theta-grid, to have a base-generated argument of the EXP subject at a higher position than the THEME object.

(4) (Agent (Experiencer (Goal/Source/Location (Theme))))

As for case assignment, it is standardly assumed that the EXP subject is assigned inherent dative case from the verb due to the fact that it is subcategorized by the verb (Shibatani and Cotton 1976). When it comes to case assignment of the THEME object, it is controversial among researchers. Here again, two different case theories diverge with regard to this issue. One position argues that nominative case on the THEME object is assigned/checked by T(INFL) (Ahn 1990, Koizumi 1994b, Ura 1996). The other position, on the other hand, argues that it is assigned by default (E. Lee 1992, Y. Kim 1990). Both arguments are intuitively made on the basis of the fact that psych-verbs lack an ability to assign any case to their THEME object.

In this chapter, I take the latter position and accordingly argue that the THEME object never enters into any checking relation with T due to the lack of its case feature in the syntax. Rather, it enters into a D-feature checking relation with *v* to be licensed as OBJ. It

is the EXP subject that enters into a checking relation with T and checks the strong D-feature of T to be licensed as SUBJ. This again is consistent with the basic licensing mechanism of our default case system, which is assumed throughout the dissertation.

This chapter is organized as follows. In section 2, I present some basic properties of the EXP and the THEME argument in order to show that the former and the latter are a legitimate subject and object respectively. In section 3, I critically review some previous analyses of DSC undertaken in the GB and the minimalist theory, and point out problems they bear with an eye to propose our default case analysis with a more explanatory power on empirical as well as conceptual grounds. Section 4 is reserved for showing aspects of ECM raising in DSC. Here, I demonstrate that our default case analysis provides a more principled account of ECM raising on a par with superraising, which involves multiple Specs in the spirit of the Bare Phrase Structure (Chomsky 1994).

5.2. Basic Properties of DSCs

It has been commonly held that grammatical functions are formally encoded by means of case marking and word order. In particular, SUBJ and OBJ generally manifest their grammatical function via bearing nominative and accusative case respectively. Given this, case marking on the EXP subject and the THEME object in DSC is somewhat puzzling and calls for a special investigation. In this section, I will present some basic properties of DSC in terms of case arrays that are represented by the two arguments and their grammatical status.

5.2.1. Case Arrays

5.2.1.1. DAT-NOM pattern

In most typical DSCs, the EXP subject bears dative case and the THEME object bears nominative case.

(5) Korean (E. Lee 1992)
Chelsu-eke ton-i/*-ul philyoha-ta.
D money-N/*-Acc necessary-DEC
'Chelsu needs money'

(6) Japanese (Ura 1996: 320, from Sugioka 1985: 156)
Taroo-ni eigo-ga/*-o dekir-u.
D English-N/*-A understand-PRES
'Taroo understands English'

(7) Tamil (Ura 1996: 355, from Lehmann 1993: 189)
Kumaar-ukku cila ninaivu-kal-Ø va-nt-ana.
Kumar-D a few memory-PL-N come-PAST-3PL.NT
'Kumar got some memories'

(8) Malayalam (Mohanan 1982)
kuṭṭikkə saŋkaṭam aaṇə.
child-D sorrow-N is
'The child is unhappy'

(9) Kannada (Sridhar 1979)
avanige tāyiya jnāpaka bantu.
he-D mother's remembrance-N came
'He remembered his mother'

In (5) and (6), it is shown that DSC does not allow an accusative-marked THEME object. From this, we can make a null hypothesis that in Korean and Japanese psych-verbs are not able to assign any case to the object unless they assign nominative case. This assumption should hold for other languages in (7)-(9).

5.2.1.2. DAT-ACC pattern

In this pattern, the THEME object surfaces with accusative case. A cursory look at (2) and (10) reveals a difference in the nature of the verbs involved in a clause within the same language.

(10) Tamil (Ura 1996: 352, from Lehmann 1993: 184)
a. Kumaar-ukku raajaav-aip pitikk-um.
Kumar-D Raja-A like-IMP
'Kumar likes Raja'

b. Kumaar-ukku inta uur-ait teriy-um.
Kumar-D this place-A know-IMP
'Kumar knows this place'

We note that the verbs in (10) are transitive ones. Hence, it is natural to assume that they have an internal argument and assign accusative case to it. The two patterns of case array illustrated above clearly show case alternation of the THEME object between nominative and accusative. However, the EXP subject is still consistent in its case marking, which will be seemingly supporting our basic assumption that the EXP subject in a DSC configuration is assigned "inherent" dative case by the predicate.

5.2.1.3. NOM-NOM pattern

The above-mentioned assumption is immediately challenged by the existence of the NOM-NOM pattern of case array, in which the EXP subject bears nominative case, not dative case. One might come up with the hypothesis that the EXP subject is likewise assigned "inherent" nominative case by the verbs in this pattern of case array. This null hypothesis seems to be supported by the examples in (11).

(11) Japanese (Ura 1996: 322, from Morikawa 1993: 133)
a. Joe-ga/*-ni unagi-ga suki-da.
N/*-D eels-N fond-COP
'Joe is fond of eels'

b. Watashi-ga/*-ni susi-ga tabe-ta-i.
I-N/*-D sushi-N eat-DES-PRES
'I want to eat sushi'

The examples in (11) evidently show that the predicates that allow a nominative object are not always allowed to have a dative subject. The unavailability of dative case on the EXP subject superficially leads us to assume that the predicate in (11), unlike others, inherently assigns its subject nominative case, but not dative case. This confirms the fact that DSC, as Ura (1996: 322) notes, is lexically idiosyncratic in nature.

However, this null hypothesis is made to be untenable by the Korean counterexample in (12).

(12) nay-ka/-eke paymcange-ka coh-ta.
I-N/-D eels-N fond-DEC
'I am fond of eels'

The fact that the EXP subject can take either nominative or dative case obscures the null hypothesis that a certain group of predicates inherently assign nominative case rather than dative case. Under the default case system, this asymmetry can be explained in terms of optional inherent case assignment by the verb. In (11), the predicate is not able to assign any case to its subject, whereas in (12) the predicate can optionally assign inherent dative case to the subject.[2] When no (inherent) case is assigned to the EXP subject, it cannot be submitted to the PF interface for interpretation. The default case mechanism is put to work here and thus provides the subject with a default case feature, which is a nominative

[2] Optional inherent case asssignment has already been discussed in the preceeding chapter. It is further found in ECM raising of DSC.

case feature in both languages. This case assignment mechanism enables us to keep our basic assumption intact that the dative case of the EXP subject is intuitively "inherent."

5.2.2. Subjecthood of Dative Experiencer

It is fairly well understood that an argument in nominative/accusative case system formally bears nominative case to manifest itself to be SUBJ in its grammatical function. A natural problem that arises here is how an argument with nonnominative case such as dative is encoded as SUBJ in its grammatical function; is it a GOAL due to dative case in a canonical sense? The purpose of this subsection is to explore the possibility that it actually functions as a subject, which is lexically idiosyncratic in a particular configuration, that is, DSC. If this is the case, here we experience a completely arbitrary relation between case marking and grammatical function.

5.2.2.1. Reflexivization

The grammatical operation called "reflexivization" has been used as a canonical device to test subjecthood for an argument. Reflexive anaphors in Korean must be bound by a c-commanding subject in core cases (D. Yang 1983, Y. Kim 1990).[3]

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[3] Core cases are in contrast with peripheral cases in anaphor binding in D. Yang (1983). In the former, anaphors are bound by a c-commanding subject, whereas in the latter they are discourse-bound, illustrated as follows:

(i) Speaker A: John-i salam-ul ponay-ess-ni?
N man-A send-PAST-Q
'Did John send a man?'
Speaker B: ani, caki-ka cikcep o-ass-e.
no, self-N in person come-PAST-DEC
'Lit. No, self came in person'

We note that the antecedent of the anaphor 'self' is not available within the clause. In this case, the anaphor seeks its antecedent and is bound by it in discourse.

(13) Korean (Y. Kim 1990: 242)

a. Inho$_i$-ka [caki$_i$-euy anay]-lul po-ass-ta.
N self-G wife-A see-PAST-DEC
'Inho saw self's wife'

b. * [caki$_i$-euy anay]-ka Inho$_i$-lul po-ass-ta.
self-G wife-N A see-PAST-DEC
'Lit. Self's wife saw Inho'

In (13a) the antecedent *Inho* correctly binds its reflexive anaphor *caki* 'self', satisfying Binding Condition A. In (13b), in contrast, the binding relation between the antecedent and the anaphor is reversed, violating the same condition.

The same mechanism applies to the pair of the EXP subject and its reflexive anaphor in DSC.

(14) Korean (Y. Kim 1990: 244)

a. Inho$_i$-eke [caki$_i$-euy anay]-ka kulip-ta.
D self-G wife-N be longing-DEC
'Inho is longing for self's wife'

b. [caki$_i$-euy anay]-ka Inho$_i$-eke kulip-ta.
self-G wife-N D be longing-DEC
'same meaning as (14a)'

Note that (14b) is a scrambled version of (14a).[4] Even though the word order has been changed via scrambling in (14b), the dative subject *Inho* still binds its anaphor *caki*. The grammaticality of the examples in (14) indicates that the dative subject in DSC patterns exactly the same as the nominative case-marked subject in (13a) with respect to binding facts.

The following example more clearly shows that only the dative subject is responsible for binding its reflexive anaphor, although there is an alternative candidate to bind it.

[4] This is due to the Thematic Hierarchy in (4), by which the dative EXP *Inho* is base-generated in a higher position than the nominative THEME *caki-euy anay*.

(15) Korean (O'Grady 1991: 102)
John$_i$-eke Harry$_j$-ka [casin$_{i/*j}$-euy sengkong]-ul wihayse philyoha-ta.
D N self-G success-A for need-DEC
'Lit. John$_i$ needs Harry$_j$ for self's$_{i/*j}$ success'

The fact that the subject-oriented anaphor *casin* in (15) is coreferential with only *John*, not *Harry*, strongly indicates that the dative argument actually functions as a subject. This also holds true in Japanese and Tamil.

(16) Japanese (Ura 1996: 323)
a. John$_i$-ni zibun$_i$-ga/zibun-zishin$_i$-ga simpai-da.
D self-N /self-self-N worry-COP
'John worries about himself'

b. John$_i$-ni Mary$_j$-ga [zibun$_{i/*j}$/zibun-zishin$_{i/*j}$-no sensei]-ni hikiawase-r(ar)er-u.
D N self /self-self-G teacher-to introduce-POT-PRES
'Lit, John$_i$ can introduce Mary$_j$ to self's$_{i/*j}$ teacher'

(17) Tamil (Ura 1996: 353, from Lehmann 1993: 186)
a. Kumaar-ukkut tann-ai mattum pitikk-um.
Kumar-D self-A only like-3IMP
'Kumar likes himself'

b. Kumaar$_i$-Ø raajaav$_j$-ukkut [$_{DP}$[$_{PP}$ tann$_{i/*j}$-aip parri] oru katturai-aik] koti-tt-aar.
Kumar-N Raja-D self-A about one article-A give-PAST-3SG-HON
'Kumar$_i$ gave Raja$_j$ [one article [about himself$_{i/*j}$]]

In (16a,b) and (17a) the anaphor is coreferential with the dative subject. In (17b), on the other hand, the anaphor *tann* 'self' is coreferential with the nominative-marked DP *Kumaar*, not *Raajaav*, which indicates that dative-marked *Raajaav* in this case is not a subject, but an indirect object.

Reflexivization by the dative subject is further found in Icelandic, which is well known for having plenty of nonnominative subjects (quirky subjects) (Thráinsson 1979, Andrews 1982, Zaenen and Maling 1984).

(18) Icelandic
a. Honum leiðist [konan sin/*hans].
him(D) bores wife self's/his
'He bores self's/*his wife' (Sigurðsson 1989: 207)

b. Hverjum þykir [$_{SC}$ sinn fugel gagur].
everyone(D) thinks self's bird beautiful
'Lit. Everyone thinks self's bird beautiful'
(Zaenen, Maling, and Thráinsson 1985: 450)

In Kannada, the dative subject not only controls reflexive (19a), but also reflexivizes an identical DP in an embedded sentence (19b):

(19) Kannada (Sridhar 1979: 105)
a. mūrtige tanna makkaḷa bagge tumba abhimāna.
Murti(D) self's kids of toward much pride
'Murti is very proud of his kids'

b. dinēshanige [kyārolin tannannu prītisuttāḷe endu] gottu.
Dinesh(D) Caroline self(A) loves COMP knows
'Dinesh knows that Caroline loves him'

c. avanige anitāge tanna kārannu kodalu ishṭavilla.
he(D) Anita(D) self's car(A) to give liking NEG
'He doesn't wish to give his car to Anita'

In (19c), there are two dative DPs: *avanige* and *anitāge*. The former is the subject and the latter is the indirect object in the sentence. The fact that only *avanige* 'he(D)' can control the reflexive *tanna* 'self' clearly shows that reflexivization treats the dative DP *avanige* in the DSC as subject.

5.2.2.2. Control

The dative subject in DSC can control PRO. Consider the following cross-linguistic examples.

(20) Korean

a. [PRO$_i$ tayhak-e ka-ki wihaye], Eunmo$_i$-eke manhun ton-i philyoha-ta.
college-to go-NML for D much money-N need-DEC
'PRO$_i$ to go to college, Eunmo$_i$ needs much money'

b. [PRO$_i$ elun-i-ciman], Eunmo$_i$-eke paym-i musep-ta.
adult-be-though D snake-N fearful-DEC
'Although PRO$_i$ being an adult, Eunmo$_i$ is fearful of snake'

(21) Japanese (Ura 1996: 325)

a. [PRO$_i$ sutoraiki-o yat-tei-nagara], roodoosya$_i$-ni(-wa) sono mokuteki-ga
strike-A do-PROG-while workers-D(-TOP) its purpose-N
wakara-nakat-ta.
understand-NEG-PAST
'Lit. Although PRO$_i$ being on strike, the workers$_i$ did not understand its purpose'

b. [PRO$_i$ ongaku-o kiki-nagara], John$_i$-ni hon-ga yom-er-u.
music-A listen to-while D book-N read-POT-PRES
'While PRO$_i$ listening to music, John$_i$ can read books'

(22) Tamil (Ura 1996: 354, from Lehmann 1993: 187)

a. Kumaar$_i$-ukku antap penn-aip piti-ttu, PRO$_i$ aval-aik kaliyaanam cey-t-aan.
Kumar-D that girl-A like-PART she-A marriage do-PAST-3SG.M
'Kumar$_i$ liked that girl and PRO$_i$ married her'

b. [PRO$_i$ niraiyac caappit-tu] kumaar$_i$-ukku vayirr-ai vali-tt-atu.
a lot eat-INF Kumar-D stomach-A pain-PAST-IMP
'[PRO$_i$ eating a lot], Kumar$_i$ got stomach pain'

(23) Icelandic (Ura 1996: 367)

a. Honum$_i$ leiddist [að PRO$_i$ na ekki profinu].
him(D) bored to PASS not the-exam
'He was sorry not to pass the exam' (from Sigurðsson 1989: 207)

b. Mer$_i$ likuðu bækurnar [an þess PRO$_i$ að buast við því].
me(D) liked(PL) the-books without to expect it
'I$_i$ liked the books without PRO$_i$ expecting it' (from Toribio 1993: 155)

The ill-formedness of (24)-(26) ensures that PRO in the parallel constructions cannot be controlled by any nonsubject element. This in turn supports our conclusion that the dative-marked argument in DSC is actually a subject.

(24) Korean (O'Grady 1991: 103)
[PRO$_{i/*j}$ haksayng-i-myense], John$_i$-i Harry$_j$-lul salhayhay-ss-ta.
student-be-though N A kill-PAST-DEC
'Although PRO$_{i/*j}$ being a student, John$_i$ killed Harry$_j$'

(25) Japanese (Ura 1996: 325)
[PRO$_{i/*j}$ ongaku-o kiki-nagara], John$_i$-ga Mary$_j$-o damasi-ta.
music-A listen to-while N A cheat-PAST
'While PRO listening to music, John cheated Mary'

(26) Tamil (Ura 1996: 354, from Lehmann 1993: 186)
Kumaar$_i$-Ø raajaav$_j$-ukkut panam kotu-ttu, PRO$_{i/*j}$ cantoosappat-t-aan.
Kumar-N Raja-D money give-PART feel-happy-PAST-3SG.M
'Kumar$_i$ gave Raja$_j$ money and PRO$_{i/*j}$ felt happy'

5.2.3. Status of Nominative Theme

The nominative-marked THEME in DSC constitutes another instance of disparity between case marking and grammatical function. Although it is marked as nominative, it is not treated as SUBJ in its grammatical function. Now two tests above can be likewise applied to the THEME argument to disprove its subjecthood.

First, the nominative object, unlike the dative subject, cannot bind a subject-oriented anaphor.

(27) Korean
a. Chelsu$_i$-eke Suni$_j$-ka caki$_{i/*j}$-euy tongsayng-pota te coh-ta.
D N self-G sister-than more fond-DEC
'Chelsu$_i$ is fond of Suni$_j$ more than self's$_{i/*j}$ sister'

b. John$_i$-eke Harry$_j$-ka casin$_{i/*j}$-euy sengkong-ul wihayse philyoha-ta.
D N self-G success-A for need-DEC
'John$_i$ needs Harry$_j$ for self's$_{i/*j}$ success' (O'Grady 1991: 102)

(28) Japanese (Ura 1996: 327)
*Zinzibu-ni Mary$_i$-ga zibun$_i$-no jooshi-ni ima-sugu hikiawaser-(ar)er-u.
personnel section-D N self-G boss-to right now introduce-POT-PRES
'Lit. The personnel section can introduce Mary$_i$ to self's$_i$ boss right now'

Second, the nominative object cannot control PRO in the parallel constructions as illustrated in (24) and (25).

(29) Korean (Gerdts and Youn 1988: 157)
[PRO$_{i/*j}$ mikuk simin-i-myense], apeci$_i$-eke thongyekkwan$_j$-i philyoha-ta.
US citizen-be-though father-D interpreter-N need-DEC
'Although PRO being a US citizen, father needs an interpreter'

(30) Japanese (Ura 1996: 328)
[PRO$_{i/*j}$ sake-o nomi-nagara], John$_i$-ni Mary$_j$-ga damas-er-u.
sake-A drink-while D N cheat-POT-PRES
'While PRO$_{i/*j}$ drinking sake, John$_i$ can cheat Mary$_j$'

The observation of binding and control facts above ensures that the nominative argument of the examples in (27)-(30) is at least distinct from ordinary SUBJ in its grammatical function.[5] Then, what is the exact status of it? Without further complications, I will simply follow the assumption widely made in the literature that the nominative THEME is OBJ in its grammatical function (Kuno 1973, Tada 1992, Dubinsky 1993, Koizumi 1994b, to name a few).

[5] Even so, Ura (1996: 329), following by Tada (1993) and Uchibori (1994), says that "the nominative object in DSC behaves like an ordinary subject" with respect to possessor-raising; that is, possessor-raising is allowed from the nominative object, shown as follows:

(i) a. Boku-ni [John-no atama]-ga tatak-er-na-i.
I-D G head-N hit-POT-NEG-PRES
'I cannot hit John's head'

b. Boku-ni John$_i$-ga [t_i atama]-ga tatak-er-na-i.
I-D N head-N hit-POT-NEG-PRES
'same meaning as (ia)' (Uchibori 1994: 11)

Their argument that the nominative object in Japanese shares properties of an ordinary subject comes from the fact that possessor-raising is allowed only from the subject in Japanese. This criterion, however, might be obviated in Korean which allows possessor-raising from the object as well as the subject. This property of the nominative object is reconciled with nominative feature checking in a Spec of T in Koizumi (1994b) and Ura (1996).

5.3. Feature Checking in DSCs

In this section, I will illustrate the aspects of feature checking in DSC under two different case systems, which I call the "Case-by-T(ense) Theory" and the "Case-by-D(efault) Theory," and their theoretical implications within the minimalist syntax. A unique relationship between case marking and grammatical function in the two arguments of DSC brings a lot of different analyses in the P&P theory and in the checking theory. In section 3.1, I will address the issue concerning whether the EXP subject is PP or DP. This issue has some consequences for the illustration of feature checking. In section 3.2, I introduce the analysis of feature checking in DSC under the Case-by-T Theory and its theoretical implications. Section 3.3 is reserved for the illustration of feature checking in DSC within the default case system.

5.3.1. PP or DP

The post-nominal particles, *-eke* in Korean and *-ni* in Japanese, share striking similarities in that they give rise to an ambiguity between a case marker and a postposition (Kuroda 1965, Miyagawa 1989, E. Lee 1992, Sadakane and Koizumi 1995). Sadakane and Koizumi (S&K, 1995: 5), following Miyagawa (1989), make a distinction between the two categories by saying that "postpositions like *kara* 'from' and *de* 'with' project their own maximal projections, whereas case markers such as the nominative *ga* and the accusative *o* directly cliticize onto an NP without projecting a maximal projection." More specifically, it can be said that a postposition, taking an NP as its complement, projects the maximal projection PP and gives a theta-role to the NP.

In order to make a further distinction between postpositions and case markers in Japanese, Sadakane and Koizumi (S&K, 1995: 8) discuss three syntactic environments such as 'the floating numeral quantifier construction', 'clefting with a particle', and 'clefting without a particle', in which the two categories show different grammatical aspects. The Japanese examples in what follows are drawn from S&K (1995: 8-11). Firstly, they illustrate that an NP with a case marker can be associated with a numeral quantifier (31), but an NP with a postposition cannot (32).[6]

(31) Japanese (Sadakane and Koizumi 1995: 8)

a. [$_{NP}$ *gakusee*-ga] 3-*nin* piza-o tabeta.
student-N 3-CL pizza-A ate
'Three students ate pizza'

b. John-ga [$_{NP}$ *piza*-o] 2-*kire* tabeta.
N pizza-A 2-CL ate
'John ate two slices of pizza'

(32) a. * John-ga [$_{PP}$ [$_{NP}$ *gakusee*]-kara] 3-*nin* purezento-o moratta.
N student-from 3-CL presents-A received
'John received presents from three students'

b. * Mary-ga [$_{PP}$ [$_{NP}$ *kompuutaa*]-de] 2-*dai* ronbun-o kaita.
N computer-with 2-CL paper-A wrote
'Mary wrote a paper with two computers'

Secondly, PPs may occur in the focus position of the cleft construction (33), whereas NPs with a case marker may not (34):

(33) a. John-ga tegami-o moratta no-wa [$_{PP}$ Mary-kara] da.
N letter-A received NML-TOP Mary-from COP
'It's from Mary that John received a letter'

[6] The asymmetry between the prepositions and the case markers in the floating numeral quantifier constructions can be accounted for by Miyagawa's (1989) Mutual C-Command Requirement, which states that a numeral quantifier and its host NP must c-command each other. A mutual c-command relation holds in (31), whereas it does not in (32) due to the intervention of the maximal projection PP; that is, the numeral quantifier in (32) can c-command its host NP, whereas the latter does not c-command the former due to the intervention of the maximal projection PP.

b. John-ga keeki-o kitta no-wa [$_{PP}$ kono naihu-de] da.
N cake-A cut NML-TOP this knife-with COP
'It's with this knife that John cut the cake'

(34) a. * [Kinoo piza-o tabeta] no-wa [$_{NP}$ Mary-ga] da.
yesterday pizza-A ate NML-TOP Mary-N COP
'It's Mary that ate pizza yesterday'

b. ?? [Kinoo Mary-ga tabeta] no-wa [$_{NP}$ piza-o] da.
yesterday Mary-N ate NML-TOP pizza-A COP
'It's pizza that Mary ate yesterday'

Thirdly, NPs may occur in (34) without the particle as in (35), whereas PPs may not occur in (33) without the particle as in (36).

(35) a. [Kinoo piza-o tabeta] no-wa *Mary* da.
yesterday pizza-A ate NML-TOP Mary COP
'It's Mary that ate pizza yesterday'

b. [Kinoo Mary-ga tabeta] no-wa *piza* da.
yesterday Mary-N ate NML-TOP pizza COP
'It's pizza that Mary ate yesterday'

(36) a. */?? John-ga tegami-o moratta no-wa [$_{PP}$ *Mary*] da.
N letter-A received NML-TOP Mary COP
'It's (from) Mary that John received a letter'

b. ? John-ga keeki-o kitta no-wa [$_{PP}$ *kono naihu*] da.
N cake-A cut NML-TOP this knife COP
'It's (with) this knife that John cut the cake'

Our discussion naturally concerns the status of the post-nominal particle *-eke* in Korean and *-ni* in Japanese. We can apply the aforementioned three criteria to DSCs to verify the status of the particles attached to the dative subject in Korean and Japanese. Let us consider DSCs in the proposed constructions.

(37) Korean
a. *Floating Quantifier Construction*
?* ku *haksayng*-eke *3-myeng* paym-i musep-ta.
that student-D 3-CL snake-N fearful-DEC
'Three students are fearful of snake'

b. *Clefting with -eke*
* [paym-i museun]-kes-un [$_{DP}$ ku *haksayng-eke*] ida.
snake-N fearful-NML-TOP that student-D COP
'It's the student that is fearful of snake'

c. *Clefting without -eke*
[paym-i museun]-kes-un [$_{DP}$ ku *haksayng*] ida.
snake-N fearful-NML-TOP that student COP
'It's the student that is fearful of snake'

(38) Japanese[7]
a. *Floating Quantifier Construction*
?* *gakusee*-ni *3-nin* eigo-ga wakaru.
students-D 3-CL English-N understand
'Three students understand English'

b. *Clefting with -ni*
?* [eigo-ga wakaru]-no-wa [*gakusee-ni*] da.
English-N underatand-NML-TOP student-D COP
'It's the student that understands English'

c. *Clefting without -ni*
[eigo-ga wakaru]-no-wa [*gakusee*] da.
English-N understand-NML-TOP student COP
'It's the student that understands English'

Three constructions that S&K suggest provide good diagnostic criteria for distinguishing between DPs and PPs except the floating quantifier construction, in which DPs and PPs manifest no prominent distinction.

In addition to the diagnostic tests illustrated above, there is a crucial piece of evidence that DPs and PPs with the particle *-eke* are different in syntactic behaviors. E. Lee (1992: 242) shows that dative case cannot be "converted" to nominative in passives. She treats the external argument with the particle *-eke* as DP, not PP.

[7] Thanks to Kunio Nishiyama and Kuniyoshi Ishikawa for their examples and judgments.

(39) Korean (E. Lee 1992: 242)

a. na-eke/*ka Yenghi-ka cye-ss-ta.
I-D/*N Yenghi-N be defeated-PAST-DEC
'Yenghi was defeated by me'

b. koyangi-eke/*ka cwi-ka cap-hi-ess-ta.
cat-D/*N mouse-N catch-PASS-PAST-DEC
'A mouse was caught by a cat'

She asserts that the external argument DP is assigned inherent dative case in the passive in conjunction with theta-marking by the passive verb. If she treats the external argument of the passive as DP, then she will miss a generalized account of the EXP subject in DSC whose dative case is readily "converted" to nominative case, shown as follows:

(40) Korean (E. Lee 1992)

a. Eunbee-eke/ka umak-i coh-ta.
Eunbee-D/N music fond-DEC
'Eunbee is fond of music'

b. Eunmo-eke/ka paym-i musep-ta.
Eunmo-D/N snake-N fearful-DEC
'Eunmo is fearful of snake'

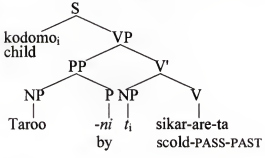
The dative subject of the examples in (40) is likewise assumed to be inherently case-marked by the verb (Y. Kim 1990, Ura 1996). However, the dative argument in (40), unlike the external argument in (39), easily converts its dative case to nominative one. This asymmetry between (39) and (40) in terms of "case conversion" dictates that the dative-marked arguments in (39) need a distinct treatment from the dative subject in (40).

Our treatment of it as PP readily accounts for the asymmetry in question. The reason why the external argument in (39) resists "case conversion" is attributable to its grammatical status as PP, not as DP. As mentioned earlier, the particle as P has semantic content and thus it projects its own maximal projection PP by taking DP as its complement.

Hence, if it is converted to the nominative case marker, it implies that its semantic content is deleted, which is virtually in violation of the Theta Criterion.

Our treatment of the external argument of the passive as PP is supported by Miyagawa (1989). He (p. 7) treats the *-ni* particle as P in the agentive *-ni* 'by' phrase in Japanese passives. He suggests that the agentive *-ni* phrase is base-generated in VP-Spec at D-structure, as illustrated in (41). According to Miyagawa, the complement of the passive verb is motivated to move to the subject position to get case. He claims that the passive morphology in the direct passive suppresses the external theta-role of the transitive verb *sikaru* 'scold,' which makes only one theta-role available to the object NP.

(41)



The *-ni* phrase, as shown in (41), does not receive any theta-role from the passive verb. Hence, it is treated as an adjunct. It follows that E. Lee's (1992) argument is not tenable that dative-marked DP in the passive is assigned inherent dative case in conjunction with theta-role assigned by the passive verb.[8]

[8] Note that E. Lee attributes the unavailability of case conversion to nominative case in the passive to the observation that the "aboutness" relation does not hold between the dative DP and the rest of the sentence. By logic, then, the "aboutness" relation should hold between the dative subject in DSC and VP consisting of the nominative object and the verb, since the dative subject allows "case conversion" to nominative. It should be noted, however, that the dative subject in DSC is not a topic or focus with respect to VP. Rather, it is a legitimate subject in DSC. In this regard, her account of case conversion in terms of the "aboutness" relation is not maintained. Moreover, the "aboutness" relation is formerly assumed to hold between a topic and the rest of the sentence, as originally suggested by Kuno (1973).

To sum up, we have so far discussed the different behaviors between DPs(NPs) and PPs, both of which are attached by the particles such as *-eke* in Korean and *-ni* in Japanese. We have argued that the dative subject in DSC is DP by showing its behaviors in three diagnostic constructions such as 'the floating quantifier construction', 'clefting with the particle', and 'clefting without the particle'. More importantly, the dative subject with the particle *-eke* in Korean proves to be DP in that it, unlike its counterpart DP in the passive, shows "case conversion" to nominative. This fact clearly indicates that the particle on the dative subject is simply a case marker, not a postposition, which does not provide any semantic content to the dative subject.[9]

5.3.2. Case by Tense

In the preceding discussion, we have established that the particle on the dative subject in DSC is not a postposition but a case marker. This in turn leads us to treat the dative subject in DSC not as a PP but as a DP. Hence, the proposed DP and the THEME object are expected to undergo the syntactic operation called Move-α. In this section, I will briefly review the previous analyses which argue for nominative case assignment by INFL under two main streams of the theoretical frameworks such as GB (Chomsky 1981, 1986a) and the minimalist program (Chomsky 1993, 1995).

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[9] Y. Kim (1990: 244-5) asserts that the dative marker of the dative subject, *-eke*, in Korean is simply a dummy case marker, not P, in that the dative subject can bind a reflexive, exemplified as follows:

(i) Inho-eke/ka [caki-euy anay]-ka kulip-ta.
Inho-D/N self-G wife-N be missed-DEC
'Inho is longing for self's wife'

If the dative marker *-eke* is P, *Inho* cannot c-command the reflexive *caki* due to the intervening maximal projection PP.

5.3.2.1. GB analyses

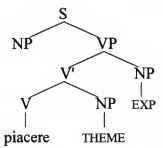
Before we proceed with our discussion, let us basically assume (I) that the EXP argument in DSC is underlyingly base-generated in a position higher than the THEME argument with their linear order parameterized across languages, and (II) that the former is assigned inherent dative case by the predicate (Sridhar 1979, Belletti and Rizzi 1988, Farrell 1990, Ahn 1990, Y. Kim 1990, Ura 1996). Belletti and Rizzi (1988: 291) show two different types of DSC in Italian, illustrated in (42).

(42) a. A Gianni piace questo.
to Gianni pleases this

b. Questo piace a Gianni.
this pleases to Gianni

The examples in (42) are shown to involve a dative EXP and a nominative THEME with both linear orderings allowed. Belletti and Rizzi (B&R) assert that in both cases the verb directly theta-marks the THEME, and the constituent, V and THEME, compositionally theta-marks the EXP. The underlying representation of (42a,b) will look like:

(43)



It is shown that the two arguments are base-generated inside the maximal projection of the verb. According to B&R, the verb assigns an inherent dative case to the EXP under

government, leaving the THEME caseless.[10] Inherent case is lexically idiosyncratic and thematically related.[11] What concerns us here is why the verb is not allowed to assign any case to the THEME and then how the THEME DP gets case. To answer the first question, B&R (p. 332) propose the following rule:

(44) V is a structural case assigner iff it has an external argument.

It should be pointed out that (44) dwells on Chomsky's (1965) notion of "subject," which is [NP, S], in that both the EXP and the THEME are treated as VP-internal arguments in (43). By (44), the verb in (43) is not able to assign a structural case to the THEME.

To answer the second question, B&R postulate NP(DP)-movement to the subject position where nominative case is assigned. As shown in (42), the two arguments can move to the subject position. If the EXP moves, (42a) results; if the THEME moves, (42b) results. The THEME naturally moves to IP-Spec to get nominative case via Spec-Head agreement (Sigurðsson 1991, Vikner 1991).[12] The movement of the EXP out of VP, however, yields the following three theory-internal questions. First, where does it move? B&R (p. 337) suggest two plausible positions: (a) the topic position or (b) the subject position. Presenting several pieces of evidence in favor of the latter hypothesis, which I will not go into in detail, they assert that the dative EXP ends up in preverbal subject position, resulting in a DSC configuration.

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[10] This holds true under the basic tenet of the case theory in GB that a case assigner can assign only one case to a case assignee (Chomsky 1981, 1986a).

[11] Hence, it is predicted that V with a different lexical idiosyncratic property assigns a different inherent case; for example, *preoccupare* 'worry', unlike *piacere* 'please', assigns inherent accusative case to its EXP argument.

[12] Masullo (1993) finds a parametric explanation of A/A' distinction of IP-Spec in terms of movement. In Italian, he argues, IP-Spec is an A-position [+case], whereby an argument can move to the position to get nominative case via Spec-Head agreement. In Spanish, on the other hand, it is an A'-position [-case], whereby an argument stays in situ to get nominative case via government by INFL.

Second, if the EXP moves to the subject position, how does the THEME get nominative case? Apparently, it is not assigned case by INFL in situ due to the fact that "government by INFL cannot penetrate the VP barrier (Belletti 1988: 339)." B&R entertain the idea that the THEME is VP-adjoined to the right in order to receive case from INFL under government (Koopman and Sportiche 1991, Contreas 1992). In this case, the INFL node assigns the THEME nominative case to the right.

Third, why does the EXP move to the subject position even when it has inherent case from the verb? Apparently, movement to the subject position is not an instance of scrambling because the position is not an XP-adjoined position (Saito 1985, 1989, 1992; Mahajan 1990). Farrell (1990) entertains the idea that the EXP (the 'Stimulus' in his term) is base-generated not as an NP(DP) but as a PP in subject position.[13] The key idea is that the P incorporates (in the sense of Baker 1988) into INFL, leaving its complement NP in the subject position. Now INFL is allowed to govern and case-mark the NP left in the position at S-structure.

Let us turn to DSCs in Korean. First of all, Kim and Larson (1989) provide an account of psych-verb constructions in terms of a scopal relationship between the dative EXP and the nominative THEME. They make a generalization about scope that in Korean, unlike in English, scope of quantifier phrases is, by and large, determined by c-command relations at S-Structure, as exemplified in (46):

(45) Someone invited everyone.
  a. 'There was someone who invited everyone'
  b. 'Everyone was invited by someone or other'

[13] According to this hypothesis, it is naturally predicted that (42a) and (42b) have a different underlying structure.

(46) nwukwunka-ka nwukwuna-lul chotayhay-ss-ta.
someone-N everyone-A invite-PAST-DEC
'Someone invited everyone'

As the generalization above predicts, the English example in (45) entails two different interpretations, whereas its Korean counterpart (46) induces only one interpretation, where the existential quantifier has scope over the universal quantifier. Contrary to the unambiguous sentence in (46), the following psych-verb constructions are observed to be ambiguous, providing apparent counterexamples to the proposed generalization.

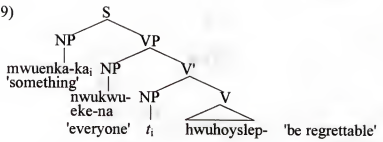
(47) [$_{IP}$ mwuenka-ka [$_{VP}$ nwukwu-eke-na hwuhoyslep]]-ta.[14]
something-N everyone-D be regretful-DEC
a. 'Everyone regrets something or other'
b. 'There is something that everyone regrets'

(48) [$_{IP}$ nwukwunka/mwuenka-ka [$_{VP}$ nwukwu-eke-na phiyoha]]-ta.
someone/something-N everyone-D be needed-DEC
a. 'Everyone needs someone/something'
b. 'There is someone/something that everyone needs' (Kim and Larson 1989)

Kim and Larson (1989) mention that although the examples in (47) and (48) induce two different interpretations, there is a strong preference for the (a) readings in which the dative universal QP takes scope over the nominative existential QP in each of these examples. This preference is attributable to the fact that the former is base-generated in a higher position than the latter in the underlying representation (Sridhar 1979, Belletti and Rizzi 1988, Y-J. Kim 1990, Ahn 1990, Farrell 1990, Ura 1996). The alternative (b) readings in (47) and (48) are argued to be induced by syntactic movement, as delineated in (49) (cf. Kim and Larson 1989: 687).

[14] The particle *-na* on the EXP is treated to be the scope marker of the constituent that it attaches to in Y. Kang (1986) and Ahn (1990).

(49)



Ahn (1990) basically entertains the idea that semantic ambiguity is induced by syntactic movement as observed in Kuroda (1971), Hoji (1985), and Aoun and Li (1989). Ahn documents such a variety of constructions involving syntactic A-movement as passive, raising, psych-verb constructions, etc. In this line of analysis, Ahn also points out that the examples in (47) and (48) are ambiguous. However, he observes that the counterparts of (47) and (48) are not ambiguous, where the universal QP (EXP) is marked as nominative.

(50) [$_{IP}$ nwukwu-ϕ-na [$_{VP}$ mwuenka-ka hwuhoyslep]]-ta.
everyone-(N) something-N be regretful-DEC
'Everyone is regretful of something'

(51) [$_{IP}$ nwukwun-ϕ-na [$_{VP}$ nwukwunka/mwuenka-ka philyoha]]-ta.
everyone-(N) someone/something-N be needed-DEC
'Everyone needs someone/something'

Although the examples in (50) and (51) are largely believed to be unambiguous, one might get an additional interpretation where the existential QP has scope over the universal QP. Ahn points out that this additional interpretation is not due to scope ambituity but due to the "referential" interpretation of the existential QP.[15] At any rate, Ahn suggests

[15] There is a parallel example which shows an ambiguity although no syntactic movement is involved in it. Consider the following simple transitive sentence, which is drawn from Kim and Larson (1989: 686):

(i) nwukwuna-ka nwukwunka-lul miwueha-n-ta.
everyone-N someone-A hate-PRES-DEC

They point out that (i) is ambiguous in that it may mean either 'For everyone, there is someone that he hates', or 'There is a specific person who is hated by everyone'. This example is related to Ahn's remark that the ambiguity is caused not by scope ambiguity but by the "referential" interpretation of the existential QP 'someone'.

that no scope ambiguity occurs in (50) and (51) due to the fact that no syntactic movement is involved in them.

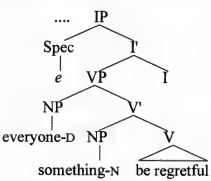
The nominative EXP in (50) and (51) can be converted to its dative counterpart, which is a more canonical case form in psych-verb constructions. Hence, the whole construction results in a DSC, illustrated as follows:

(52) [$_{IP}$ nwukwu-eke-na [$_{VP}$ mwuenka-ka hwuhoyslep]]-ta.
everyone-D something-N be regretful-DEC
'For everyone, something is regretful'

(53) [$_{IP}$ nwukwu-eke-na [$_{VP}$ nwukwunka/mwuenka-ka philyoha]]-ta.
everyone-D someone/something-N be needed-DEC
'To everyone, someone/something is needed'

Ahn argues that the examples above are ambiguous although they are superficially the same as the examples in (50) and (51), the only difference being that the EXP argument appears in the dative case instead of the nominative. (52), therefore, can have another interpretation 'there is something such that everyone regrets it'. According to Ahn, this ambiguity is attributable to syntactic movement involved in the examples. Along the same line with Belletti and Rizzi (1988), and Kim and Larson (1989), Ahn presents the underlying representation of (52) as follows:

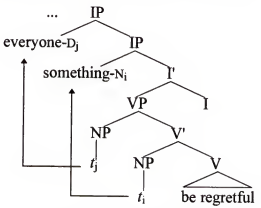
(54)



As assumed throughout the dissertation, Ahn likewise assumes that the predicate in a

DSC may optionally assign an inherent dative case to the EXP *nwukwunna* 'everyone'. What is left with him is the question as to how the THEME gets nominative case. Adopting a case theory in which INFL(AGR) assigns nominative case in Korean, Ahn argues that the THEME must move to IP-Spec to get case. In addition, the EXP is argued to be scrambled to an IP-adjoined position to obtain the surface word order in (52). The whole derivation of (52) will be represented as (55). According to Ahn, the two arguments c-command the trace of each other, resulting in scope ambiguity.

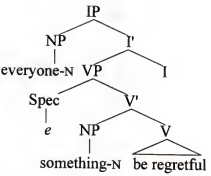
(55)



Two problems are detected from Ahn's analysis. First, he misses a generalization between (50) and (52) by positing different underlying structures for both of them although they are alike considered to be psych-verb constructions in Korean, in which the universal QP *nwukwuna* 'everyone', whatever case it bears, is the EXP in argument structure.[16] Before we proceed with our discussion, let us look at the derivational structure that Ahn suggests for (50).

[16] Case alternation between nominative and dative is due to our assumption that inherent dative case is optionally assigned to the EXP. If it is not assigned, it is assigned nominative case by default under our case system, whereas it is assigned nominative case by INFL in Ahn's system.

(56)



The nominative EXP is base-generated in IP-Spec to get case, and the nominative THEME is base-generated as a sister to the verb and raises to VP-Spec to get case from INFL.[17] Even a cursory comparison between (54) and (56) reveals that they have a different subject; Ahn treats the THEME and the EXP as SUBJ in (54) and (56) respectively. The subject in (54) moves into IP-Spec to get case, whereas the subject in (56) is base-generated in IP-Spec and gets case in this base position.[18] Clearly, this contradicts our generalized treatment of the EXP argument, nominative or dative, as SUBJ in psych-verb constructions.[19]

Second, the ambiguity that Ahn notices in the examples in (52) and (53), in which the EXP is in the dative, is not due to scope ambiguity but due to the "referential" interpretation of the existential QP (THEME), as he pointed it out for (50) and (51). This ambiguity disappears if the two QPs are switched, shown as follows:

(57) [nwukwunka-eke [mwues-i-na hwuhoyslep]]-ta.
someone-D everything-N be regretful-DEC
'Someone regrets everything'

---

[17] Ahn notes that the THEME cannot be assigned nominative case by INFL in its DS-position because this position is not governed by any governor outside VP due to the existence of the closer governor, namely, the verb. This account is in contrast to Belletti and Rizzi's hypothesis that government by INFL cannot penetrate the VP barrier, as argued earlier for Italian data.

[18] Ahn treats only an argument with dative case as an EXP. According to him, if the argument is marked as nominative, its EXP role is "latent" or "suppressed" in the sense of Grimshaw (1990) and cannot license a theta-position. For this reason, it is not located inside VP.

[19] Recall that the dative EXP exhibits all the properties of SUBJ, as illustrated in section 2.2.

(58) [nwukwunka-eke [nwukwu-ϕ-na/mwues-i-na philyoha]]-ta.
someone-D everyone-(N)/everything-N be needed-DEC
'Someone needs everyone/everything'

The fact that (57) and (58) are not ambiguous indicates that no syntactic movement is involved in them, contrary to what Ahn predicts in (52) and (53). It follows that (50) and (52), for example, substantially share the underlying representation, in which the EXP, regardless of its surface subject, is the subject of the psych-verb constructions.

Ahn's distinct treatment of the EXP in the psych-verb constructions is fundamentally due to his case system in which INFL is responsible for nominative case in Korean. In the pair of DAT(EXP)-NOM(THEME) in (52) and (53), the nominative THEME is treated as SUBJ by moving to IP-Spec for a case reason as shown in (54), whereas in the pair of NOM(EXP)-NOM(THEME) in (50) and (51) the nominative EXP is treated as such by being base-generated in IP-Spec. As will be discussed later, under our default case system the EXP in the psych-verb constructions, regardless of its case, is uniformly treated as SUBJ. As the THEME is assigned nominative case by default, it does not move into IP-Spec; it is always the EXP that moves into the position, since it is a real subject of the psych-verb constructions.

5.3.2.2. Minimalist analyses

Ura (1996) basically adopts the proposals that the EXP underlyingly occurs in a higher position than the THEME and that dative case on the EXP is in nature inherent. He provides a minimalist account (Chomsky 1995) of DSC for Korean and Japanese by proposing the following assumptions (p. 330):

A. The D(EPP)-feature of T in Korean and Japanese is strong.
B. The EXP argument of the psych-verbs that can occur in DSC is generated at the Spec of the light verb *v*, which takes a VP with the THEME.
C. The light verb in the two-layered VP shell of the psych-verbs that can occur in the Korean and Japanese DSC may assign dative case to the EXP as an inherent case, and they are allowed not to have accusative case feature as a lexical idiosyncrasy.
D. In Japanese and Korean, agreement may be independent of nominative case.
E. T's phi-feature is strong, but its nominative case feature is weak in the two languages.
F. T's nominative case feature may enter into multiple feature-checking relations.

As a first approximation, let us consider the underlying representation of DSC. Based on the assumption (B), Ura suggests the following underlying representation.

(59)

In (59), the EXP is base-generated in the Spec of *v* as DP, the status of which was attested in section 3.1. By virtue of being DP, the EXP is taken to have a D-feature that an ordinary DP argument has. This fact plays a crucial role in our explanation of T's D-feature checking by the EXP subject.

Now let us consider the derivation of DSC that Ura suggests for Korean and Japanese. The underlying structure in (59) will be schematized as follows:

(60) $[_{vP}$ EXP$_{(D)}$ $[_{VP}$ THEME$_{(N)}$ V$]$ *v*$]$

In Ura (1996), the EXP and the THEME have (inherent) dative and (structural) nominative case feature respectively in the lexicon when they are selected by the numeration. To this initial structure is T attached by Merge and projects a Spec, which will look like:

(61) $[_{TP}$ $[_{vP}$ EXP$_{(D)}$ $[_{VP}$ THEME$_{(N)}$ V$]$ *v*$]$ T$]$

As the D(EPP)-feature is strong by assumption (A), it will attract a DP with this feature

into its Spec before Spell-Out. The EXP, not the THEME, will raise into the position by the MLC to check the strong D-feature of T. It is important to note here that the nominative case feature of T is not checked by the EXP at this stage due to a case mismatch between them. The EXP need not worry about its dative case feature checking due to the stipulation in Chomsky (1995) that "inherent" case need not be checked in the syntax. The derivation after the EXP is attracted into the Spec of T will look like:

(62) $[_{TP}\ EXP_{i(D)}\ [_{vP}\ t_i\ [_{VP}\ THEME_{(N)}\ V]\ v]\ T]$ (DSC before Spell-Out)

The D- and phi-feature of *v* are implicitly assumed to be weak in Ura (1996); hence, they should be checked by the THEME in the Spec of *v* at LF in the usual manner. Case feature checking does not take place here due to assumption (C) above. (62) will not be a convergent derivation until the nominative case feature of the THEME, if any, is checked. Ura assumes that this feature is checked at LF in the Spec of T, since the case feature of T is weak by assumption (E).

In passing, the nominative THEME is often referred to as the general term "nominative object" in Japanese literature. The nominative object has been the focus of hot debate in the literature partly because it bears nominative case despite the fact that it is intuitively a notional object (Tada 1992, Dubinsky 1993, Koizumi 1994b). In addition to psych-verb constructions we have seen, other numerous constructions can have a nominative object when their predicate is [+stative]. In simple transitive sentences in Japanese, for instance, the object is marked with the accusative marker *-o* when the predicate is [-stative], whereas it is marked with the nominative marker *-ga* when the predicate is [+stative] (Kuno 1973, Tada 1992, Koizumi 1994b), shown as follows:

(63) Japanese (Koizumi 1994b: 213)

a. John-ga piza-*o* tabe-ru.
N pizza-A eat-PRES
'John eats pizza'

b. John-ga huransugo-*ga* deki-ru.
N French-N capable-PRES
'John is capable of French (John can speak French)'

It is evident that the two THEME arguments in (63) are intuitively the object of the predicate. The only difference between them lies in their case marking. It is this difference that gives rise to different mechanisms in feature checking within the minimalist theory (Chomsky 1992).

There are two main different positions with respect to case checking of the nominative object. The first position argues that the case feature of a nominative object is checked in the Spec of Agro that immediately dominates a stative VP (Tada 1992, Harley 1995). The other position, on the other hand, argues that it is checked in the Spec of T (Koizumi 1994b, Ura 1996). This mode of feature checking in Koizumi (1994b) and Ura (1996) clearly displays a complete break between a grammatical function and a feature checking relation.

Turning to our mainstream of discussion, we may wonder how the grammatical function of the nominative object is determined as its features are split when they are checked; its D- and phi-feature are checked in the Spec of *v*, whereas its case feature is independently checked in the Spec of T. This is a conceptual question that naturally arises under the hypothesis that grammatical functions are tightly linked to feature checking relations (Ura 1996). This question finds its answer from Ura's hypothesis that only an element X that has a [+construal]-feature checking relation with T(INFL) assumes

subjecthood; the [+construal]-feature in this hypothesis is equivalent to D-feature.[20] To the extent that this hypothesis is correct, it is the dative EXP, not the nominative THEME (object), that assumes subjecthood due to the fact that it has a [+construal]-feature checking relation with T (INFL). This is basically consistent with our basic licensing mechanism of SUBJ, in which SUBJ is licensed by checking the D-feature of T(INFL).

So far, we have discussed the DAT-NOM pattern of DSC. As illustrated in section 2.2, there are two other case arrays such as the DAT-ACC pattern and the NOM-NOM pattern. Let us look at the representative examples of these two patterns of case array.

(64) a. DAT-ACC pattern (Tamil; Lehmann 1993: 184)
Kumaar-ukku raajaav-aip pitikk-um. (=10a)
Kumar-D Raja-A like-IMP
'Kumar likes Raja'

b. NOM-NOM pattern (Japanese; Morikawa 1993: 133)
Joe-ga unagi-ga suki-da. (=11a)
N eels-N fond-COP
'Joe is fond of eels'

As usual, the dative subject is attracted to the Spec of T to check its strong D-feature. In the DAT-ACC pattern, the psych-predicate is allowed to have accusative case feature as a lexical idiosyncracy due to the assumption (C). In this situation, the accusative THEME (object) undergoes the same mode of feature checking as the ordinary object of a simple active transitive clause; its features are all checked off in the Spec of *v*. One thing to be

[20] In Ura (1996: 57), a [+construal]-feature is precisely defined as "the one that remains undeleted at either or both elements involved in the checking relation." In this vein, D-feature counts as a [+construal]-feature; it is deleted from T, but it remains undeleted from DP after checking. This is in contrast with a case feature in that it is deleted from both of them immediately after checking.

noted here is that T remains with its nominative case feature unchecked. Ura argues that T's case feature checking does not take place in a [+impersonal] language like Tamil.[21]

The NOM-NOM pattern represented in (64b), though not a member of DSC, deserves an explanation, coupled with the other two patterns. As we have established earlier, inherent dative case is optionally assigned by the predicate of DSC. This stipulative establishment enables the EXP subject to bear nominative case optionally. Now two nominative cases appear in a single clause with respect to a single functional category T. According to Ura, these two case features are straightforwardly attracted to a single Spec of T for checking, which is made possible by what he refers to as multiple feature checking (the assumption F).

Notice, however, that the pattern of multiple feature checking involved here differs from that involved in possessor-raising discussed in the preceding chapter. In possessor-raising, T is taken to have two sets of case feature and thus projects two Specs, an inner and outer Spec, each of which carries one set of case feature. Each Spec of T is filled by a DP that has the corresponding(matching) case feature. Hence, there is always a one-to-one mapping relation between the number of the Specs of T and the number of DPs. In contrast, multiple feature checking involved in (64b) exhibits a one-to-two mapping relation between the two parts. Under Ura's analysis, a one-to-many mapping relation can hold as shown in the following paradigm.

---

[21] Subject agreement is not induced in (64a), in which the default 3rd person singular neuter agreement morpheme *-um*, which Ura calls *impersonal*, does not agree with either argument. Sentences like (64a) are generally called *impersonal* sentences with a null expletive, or with no subject at all. Ura assumes, on conceptual grounds, that the nominative case feature of T in *impersonal* languages is not checked at all.

(65) Japanese (Ura 1996: 338, from Uchibori 1994: 11)

a. Boku-ga [John-no imooto]-ga shimpai-da.
I-N John-G sister-N anxious-COP
'I am anxious about John's sister'

b. Boku-ga John$_i$-ga [t_i imooto]-ga shimpai-da.
I-N John-N sister-N anxious-COP
'same meaning as (65a)'

(65b) is taken to be derived from (65a) by possessor-raising from the nominative object. (65b) clearly shows the fact that possessor-raising is possible from OBJ in Japanese, contrary to the general assumption that prohibits it. Recall that possessor-raising was shown to be possible only from SUBJ in Japanese, whereas possessor-raising is possible from both SUBJ and OBJ in Korean. Recall also that this parametric difference between the two languages was expressed in terms of the "violability of Procrastinate." That is, *v* in Korean tolerates one (or more than one) unforced violation of Procrastinate, whereas *v* in Japanese does not tolerate any violation of Procrastinate. Along the same line, Ura argues that *v* may not enter into multiple feature checking relations in Japanese.

If his argument is correct, (65b) clearly poses a problem to his analysis of DSC. It is suggested that possessor-raising from OBJ, as shown in (65b), is possible only if OBJ is marked as nominative in Japanese (Uchibori 1994, Ura 1996). Under Ura's analysis in which possessor-raising is possible only from SUBJ and that possessor-raising always involves a projection of two (or multiple) Specs, the derivation of (65b) will remain unexplained. Without further complication, he simply assumes that three nominative case features in (65b) are all checked in a single Spec of T at LF. From the fact that possessor-raising is allowed from nominative-marked OBJ, as shown in (65b), we can conjecture that possessor-raising in Japanese is sensitive not to grammatical function but to morpho-

logical case. To generalize this, I propose that possessor-raising is possible from an argument with default case in Japanese.[22] Under our default case analysis, the derivation of (65b) finds a more natural explanation, to which we will return in section 3.3.2.

The analyses in Koizumi (1994b) and Ura (1996), which hold that the case feature of the nominative object is checked in the Spec of T, is challenged by Harley (1995) who argues that it is checked in the Spec of Agro (*v* in Chomsky's (1995) and our system). She presents the following two pieces of evidence in favor of his argument. First, observing negative polarity item (NPI) licensing facts in Icelandic, he argues that the nominative object of a DSC does not reach higher than Spec Agro at LF.

(66) Icelandic (Harley 1995: 148)
a. **Neinum* ketti líka *ekki* hundar.
any cat(D) likes not dogs(N)
'Any cats don't like the dogs'

b. Fifi líka *ekki neinir* hundar.
Fifi likes not any dogs(N)
'Fifi doesn't like any dogs'

The examples above show a contrast between SUBJ and OBJ with respect to NPI licensing. If the proposal that the feature-checking position of α counts as α's LF position relevant to its scopal interpretation is correct (Kitahara 1992, Uribe-Etxebarria 1994), (66b) clearly shows that the nominative object's feature-checking position should be lower than the negative item *ekki*.[23] If the object is in TP-Spec or Agrs-Spec at LF, it evidently will not be in the scope of sentential negation, resulting in an illegitimate NPI licensing.

[22] I argued in § 4.3 in chapter 2 that nominative case in Japanese, as in Korean, is default.
[23] Following Pollock (1989) and Laka (1990), I consider the NegP to be generated between TP and *v*P in Chomsky (1995). See (76b) in chapter 3 for a Korean example.

Second, the nominative object can occur in a nonfinite clause, within which T (or Agrs) is not available for checking its nominative case feature.

(67) Icelandic (Harley 1995: 149, from Jonas 1993)
a. [Að líka slíkir bílar] er mikið happ.
to like such cars(N) is great luck
'To like such cars is very lucky'

b. Hann taldi [henni hafa verið gefnir hattamir].
he believed her(D) to have been given hats(N)
'He believed her to have been given hats'

The examples above show the fact that the morphological nominative case can be assigned within a nonfinite clause. Then, is it an inherent (quirky) case assigned by the verb? The answer is negative. The following two sets of paradigm show this fact.

(68) Icelandic (Harley 1995: 146, from Andrews 1990)
a. Við vitjuðum *sjúklinganna*. (Active)
we(N) visited(1PL) the patients(G.PL.M)
'We visited the patients'

b. *Sjúklinganna* var vitjað. (Passive)
the-patients(G.PL.M) was(DFLT) visited(SUPINE)
'The patients were visited'

c. Eg taldi *sjúklinganna* var vitjað. (ECM)
I believe the patients(G.PL.M) was(DFLT) visited(SUPINE)
'I believe the patients were visited'

(69) Icelandic (Harley 1995: 145-6, from Zaenen et al. 1985)
a. Við hafa gefnir konungi *hestana*. (Active)
we(N) have(PL) given a king(D) horse(A)
'We have given a king horses'

b. Konungi hafa verið gefnir *hestar*. (Passive)
a king(D) have(PL) been given horses(N)
'A king has been given horses'

c. Eg taldi *hestana* hafa verið gefna konungi. (ECM)
I believe horses(A) have been given a king(D)
'I believe horses have been given to a king'

The genitive case on *Sjúklinganna* in (68) is shown to be inherent (quirky) due to the fact that it is preserved in different structural positions. In contrast, the nominative case on the object *hestar* 'horse' of the DSC in (69b) is assumed to be structural, since its case varies according to the different structural positions as shown in (69a,c).

From the above discussion, we can tentatively conclude that the morphological case of the nominative object is not a property of T or the verb. Any other possibility? Ura (1996) is responsible for this. Under the multiple feature checking mechanism, he claims that the nominative object of a DSC can be case-licensed by the matrix INFL, resulting in a long-distance dependency. According to him, such a long-distance dependency can be established when there are no intervening formal features between the matrix T and the nominative-marked object in an embedded clause. If we apply this mechanism to the examples in (67), the nominative case feature of the nominative object in the nonfinite embedded clause can be checked in the Spec of the matrix T. However, we notice in (67b) that there is an intervening formal feature, that is, the ECM subject. Hence, Ura's claim that the nominative object has its case feature checked off in the Spec of T cannot be maintained on empirical as well as conceptual grounds.

Harley (1995: 150), considering the facts above, suggests an argument that the case on the object under consideration is mandatory in that it is assigned only when "nominative case is not realized on the subject." A DSC exactly constitutes a configuration of this kind, since the subject is assigned dative case inherently by the verb. And he reaches the conclusion that a structural nominative case should be allowed to be assigned to objects in object position so that the nominative case feature may be checked in the Spec of Agro.

We immediately notice two problems with Harley's reasoning. First, the object of DSC can be marked as nominative even when a nominative case is realized on the EXP subject in Korean and Japanese. This is due to the assumption that inherent case in these languages is optionally assigned. Second, if his argument for nominative case feature-checking in the Spec of Agro were to be maintained, two different functional categories should be allowed to check the alleged feature: Agrs for the nominative subject and Agro for the nominative object.[24] Rather, it might be more plausible to assume that Agro (or *v*) is not responsible for nominative case feature-checking. This possibility will be explored in detail in the following sections.

5.3.3. Case by Default

In the preceding discussion, we have reviewed some previous analyses which argue that the nominative object is somehow case-licensed by some functional categories such as Agrs (or T) and Agro (or *v*). In this section, I will explore another possibility under our default case system. Accordingly, it will be argued that the nominative object of DSC is assigned case by default, and this possibility will be investigated under the GB and the minimalist framework.

5.3.3.1. GB Analyses

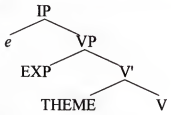
According to Belletti and Rizzi (1988), the psych-verb is in nature unaccusative in that it does not select an external argument. Hence, it takes two VP-internal arguments, a

[24] See Koizumi (1994b) for the same point concerning Tada's (1992) analysis.

THEME and an EXP prelinked to dative case in the lexicon. In a canonical unaccusative construction, the internal argument of an unaccusative verb lacks case by virtue of some sort of Burzio's generalization, and thus is forced to move to subject position for a case reason. In DSCs (or psych-verb constructions in B&R) we have seen, however, it is always the EXP with inherent dative case that moves into the alleged position as a canonical subject independently of a case-theoretic reason. For this reason, case assignment of the THEME by INFL is taken to be puzzling.

Y. Kim (1990) provides an analysis of DSC in Korean under the default case system. Along the same line of analysis throughout the dissertation, she argues that the EXP is base-generated VP-internally in a higher position than the THEME, shown as follows:

(70)



She suggests that the EXP subject of DSC receives an inherent dative case from the verb. Following Chomsky (1986a), she argues that inherent dative case is assigned to the EXP subject at D-Structure by the lexical category that governs and theta-marks it. She further argues that the EXP subject should remain within the domain of government by the verb to preserve its inherent dative case at S-structure. What happens if it moves out of the alleged domain and raises into IP-Spec? According to her, if it does, its inherent case cannot be realized any longer and it should get some other case in order not to violate the Case Filter. As we have seen above, the EXP is alternatively case-marked as nominative in Korean and Japanese. If it bears nominative case in subject position, one might natually

suppose that the case comes from INFL. This possibility, however, is immediately suppressed under her default case analysis, in which nominative case in Korean is assumed to be assigned by default. Under this line of analysis, therefore, the nominative case is taken to be realized on the EXP in IP-Spec by default.

E. Lee (1992) agrees with Y. Kim (1990) in that nominative case in Korean is default. Accordingly, she argues against any type of NP-movement, since any caseless NP(DP) gets nominative case in its base-generated position by default. This is a natural conclusion which can be reached under the GB framework, in which NP-movement is assumed to take place for case reasons. From this perspective, she points out that movement of the EXP into IP-Spec is not syntactically motivated. Instead, she proposes that the EXP with nominative case occurs in a focus position outside IP at S-Structure. We notice from this that IP-Spec is still empty, not filled by any element. This fact raises the question as to how the EPP is satisfied under her analysis. This question is readily answered by her argument that the EPP does not hold in any syntactic levels in Korean. This is a natural consequence under her default case analysis.

When it comes to case assignment of the nominative object, Y. Kim (1990) and E. Lee (1992) share the argument that it is assigned by default. Their argument is based on the fact that the verb in DSC lacks an ability to assign any structural case. To illustrate, Y. Kim (1990) presents two types of psych-verb in the following paradigm.

(71) Korean (Y. Kim 1990: 63-64)
a. nay-ka/*eke umak-ul/*i coh-a-ha-n-ta.
I-N/*D music-A/*N be likable-do-PRES-DEC
'I like music'

b. nay-ka/eke umak-i/*ul coh-ta.
I-N/D music-N/*A be likable-DEC
'I am fond of music'

The predicate *coh-a-ha* 'like' in (71a) consists of the bare-form psych-verb *coh* and a kind of auxiliary verb *ha* 'do' intermediated by the verbal suffix *-a/e*. In this case, the EXP is always marked as nominative and the THEME as accusative. It follows that the construction (71a) is similar to an ordinary transitive sentence with respect to case marking. (71b), on the other hand, constitutes a DSC of our concern. A comparison between the two examples enables us to notice the function of the auxiliary verb *ha*. It is called an "emotional transitivizer" in Martin (1992), and it appears to be responsible for such case marking in (71a). Due to its presence, the bare-form psych-verb *coh* is deprived of the ability to assign an inherent dative case to its EXP subject, but endowed with the ability to assign an accusative case to its THEME object. The elimination of (*a*)-*ha* retrieves the sentence back to the canonical DSC (71b). From these facts, it is evident that the bare-form psych-verb lacks the ability to assign any structural case to its THEME object. Naturally here arises default case marking in order to satisfy the Case Filter.

To sum up, under the default case analyses proposed by Y. Kim (1990) and E. Lee (1992) the alternative nominative case on the EXP and the obligatory nominative case on the THEME are assumed to be assigned by default in a straightforward manner. Hence, it is highly predicted that the two NPs may not undergo any NP-movement for case reasons, since they are assigned case, inherent or default, in their base position. It follows from this that the EPP does not hold in Korean at any syntactic levels under their analyses. The nominative EXP is exceptionally assumed to move into IP-Spec in Y. Kim (1990), conse-

quently satisfying the EPP. In E. Lee (1992), on the other hand, it is assumed to move into a topic position, still leaving the subject position empty, which is consistent with her claim that the EPP never holds in Korean at any syntactic levels.[25] Their argument for the absence of syntactic NP-movement in terms of case is not tenable under our default case system based on the minimalist framework, in which any argument NPs(DPs), including the EXP argument of DSC, are forced to move to a Spec of T to check the D(EPP)-feature of T. In the section that follows, I will wrap up the problems found in the analyses discussed above and propose a more principled analysis within the minimalist theory.

5.3.3.2. Minimalist analysis

Following Ura (1996: 330-331), I propose the following three assumptions:

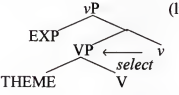
A. The D(EPP)-feature of T in Korean and Japanese is strong.
B. The EXP argument of DSC is base-generated in the Spec of *v*, which selects a VP with the THEME in its complement position.
C. The light verb *v* that occurs in Korean and Japanese DSC may assign dative case to the EXP argument as an inherent case, and the predicates of DSC may or may not be allowed to have an accusative case feature as a lexical idiosyncracy.[26]

In addition, I propose (D) that the nominative case of the THEME is default; and (E) that the light verb *v* is allowed to have multiple Specs when the THEME has a default case in Japanese. By the assumption (A), a subject DP is forced to move into the Spec of T, satisfying the EPP. Due to the default case strategy, the EPP is implemented not by case requirement but by T's strong D-feature, contrary to E. Lee's (1992) argument against the

[25] Under their default case analyses, the position where the subject occurs is two-fold; the ordinary nominative subject remains within VP, whereas the nominative EXP raises into IP-Spec in Y. Kim (1990) and into a topic position in E. Lee (1992). In this regard, they lack a generalized account of the subject position.
[26] Recall that Tamil (Lehmann 1993) has a NOM-ACC case array in DSC, in which case the predicate may be allowed to have an accusative case feature.

EPP in terms of abstract case.[27] By the assumption (B), we can present the underlying representation of DSC as follows:

(72)



(linear order irrelevant)

Looking at the assumption (C), we note that this assumption is in contrast with Belletti and Rizzi's (1988) analysis, in which the "lexical" predicate, not a functional category, assigns a theta-role and an inherent case to the EXP argument. I simply assume that when the functional category *v* in (72), as a head, "selects" the VP headed by the lexical predicate, it can inherit such properties of the lexical precidate and perform the alleged tasks.[28] The assumption (D) is essentially an extension of our basic tenet of the dissertation that nominative case in Korean and Japanese is default. Since the predicate of DSC is taken to lack an ability to license accusative case especially in the DAT(NOM)-NOM pattern, the THEME remains without any case feature in the lexicon. Finally, it undergoes a default case realization at PF to satisfy the Case Filter. Due to the lack of a case feature in the syntax, the THEME is expected not to participate in any case feature checking. To the extent that this assumption is correct, we can avoid Ura's (1996) stipulative assumption that any number of nominative case features are checked in a single Spec of T. Finally, the assumption (E) is motivated by the empirical fact that in Japanese only nominative-marked DPs, SUBJ or OBJ, allow possessor-raising. A generalization can be made in such

[27] This is consistent with our basic tenet of the dissertation that SUBJ is licensed not by abstract case but by D-feature (+construal feature in Ura 1996) checking by T.

[28] In (72), *v* is combined to VP by Merge. Paul Hagstrom (p.c.), citing Chomsky (class note), suggests to me that Merge should be "motivated." Hence, it might be that the VP category in (72), headed by a psych-verb, is motivated to be merged with *v* which has the ability to assign inherent dative case to the EXP subject.

a way that functional categories like T and *v* in Japenese are allowed to project multiple Specs not for their multiple "case feature" checking but for their multiple D-feature checking.

Based on the assumptions above, let us take a look at the derivation of DSC in the pattern of DAT-NOM case array. Recall that *v* in Korean is strong, and thus it attracts the nominative object DP into its Spec at overt syntax, shown as follows:[29]

(73) $[_{vP}$ THEME$_{i(N)}$ $[_{VP}$ t_i V] $v]$

By raising into the Spec of *v*, the THEME checks its strong D-feature. There is no worry about case-feature checking here, since the THEME has no case feature and *v* lacks an intrinsic ability to check the case feature by the assumption (D). In the next stage, the EXP subject is inserted at the outer Spec of *v* by Merge (assumption B).

(74) $[_{vP}$ EXP$_{(D)}$ $[_{v'}$ THEME$_{i(N)}$ $[_{VP}$ t_i V] $v]]$

(74) clearly observes the Thematic Hierarchy (Grimshaw 1990) by generating the EXP in a higher position than the THEME. Now T is attached to (74) by Merge and it attracts a nearest DP to check its strong D-feature (assumption I). Its derivation will look like:

(75) $[_{TP}$ EXP$_{j(D)}$ $[_{vP}$ t_j $[_{v'}$ THEME$_{i(N)}$ $[_{VP}$ t_i V] $v]]$ T]

It is the EXP that is attracted into the Spec of T, since it is closer to the position than the THEME. By the assumption (D), T in Korean and Japanese lacks an intrinsic ability to check a nominative case feature. This assumption makes the Spec of T blind to case feature checking. This ensures that the EXP subject, dative or nominative, can raise into the position, without ado, to be licensed as a canonical subject by checking the D-feature

[29] The D-feature of *v* in Japanese is assumed to be weak in Japanese (Ura 1994a, 1996); hence, it is assumed not to be checked at this stage. Empirical evidence for this will be provided in section 4.

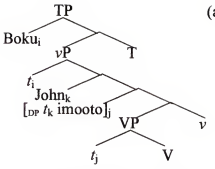
of T. Under the present analysis, the two-fold account of DSC provided by Ahn (1990) could be avoided, in which the EXP is treated as a subject if marked as nominative, but otherwise the nominative THEME becomes a subject. The present analysis also ensures that the EPP in Korean (and Japanese) is implimented by D-feature checking, which makes untenable E. Lee's (1992) analysis of the EPP in terms of default case.

Under our present analysis, the somewhat mysterious examples in (65) find a natural explanation of derivation. Consider those examples, repeated here as (76).

(76) Japanese (Ura 1996: 338, from Uchibori 1994: 11)
a. Boku-ga [John-no imooto]-ga shimpai-da.
I-N John-G sister-N anxious-COP
'I am anxious about John's sister'

b. Boku-ga John$_i$-ga [t_i imooto]-ga shimpai-da.
I-N John-N sister-N anxious-COP
'same meaning as (76a)'

In (76a), the second nominative-marked argument is the object, as argued by Tada (1992), Dubinsky (1993), Koizumi (1994b), Uchibori (1994), Harley (1995), and Ura (1994a, 1996). If this is correct, (76b) clearly shows that possessor-raising in Japanese is possible from objects as well. Possessor-raising from objects is, however, limited to constructions where the object is nominative case-marked (Uchibori 1994, Ura 1996). From these facts, we have proposed that possessor-raising is allowed from DPs, SUBJ or OBJ, with default case in Japanese. Under our proposals, the derivation of (76b) will be represented as in (77). The whole possessive DP, *John-ga imooto-ga*, first raises into the inner Spec of *v* to check its D-feature, and then the possessor *John-ga* raises into the outer Spec of *v* to check another D-feature.

(77) 

These two nominative-marked DPs are licensed as OBJ by checking the D-feature of *v*. Under our default case analysis, T in Korean and Japanese is assumed to lack an ability to check any case feature. It follows that three nominatives in (76b) find no inner source to provide them with case within the clause. What happens if they get a source for case outside the clause? The next section is reserved for the investigation of this possibility.

5.4. Superraising in DSCs

5.4.1. Nominative vs. Accusative Object in DSCs

In a canonical DSC in Korean and Japanese, the object is never marked as accusative if the clause containing it is in isolation. This is a natural result given the fact that the DSC lacks any element responsible for accusative case assignment (or checking). The following examples of the two languages show this fact.

(78) Korean

a. Eunmo-eke ton-*i* manh-ta.
Eunmo-D money-N much-DEC
'Eunmo has a lot of money'

b. * Eunmo-eke ton-*ul* manh-ta.
Eunmo-D money-A much-DEC
'same meaning as (78a)'

(79) Japanese (Ura 1994a: 355)
a. John-ni piano-*ga* hik-er-u.
John-D piano-N play-can-PRES
'John can play the piano'

b. * John-ni piano-*o* hik-er-u.
John-D piano-A play-can-PRES
'same meaning as (79a)'

The ungrammaticality of the (b) examples clearly demonstrates that the predicates in DSC, as we have established earlier, are not responsible for assigning case to their notional object. Nonetheless, the DSC objects in (78) and (79) can be accusative-marked when the clauses containing them are embedded by a certain kind of epistemic verb like *think* or *believe*, shown as follows:

(80) Korean
na-nun ton$_i$-*ul* [Eunmo-eke t_i manh-tako] sayngkakha-n-ta.
I-TOP money-*A* Eunmo-D be much-COMP think-PRES-DEC
'I think that Eunmo has a lot of money'

(81) Japanese (Ura 1994a: 356)[30]
Boku-wa [John-ni piano-*o* hik-er-u to] omow-u.
I-TOP John-D piano-*A* play-can-PRES COMP think-PRES
'I think that John can play the piano'

The grammaticality of the examples above indicates that some element outside the DSC clause is responsible for the accusative case of the DSC objects. Given the standard assumption that accusative case is licensed by a transitive verb, it is evident that the matrix verb 'think' is responsible for accusative case assignment to the objects, resulting in an ECM configuration. Then, we face the issue as to how the accusative case feature is checked by the matrix verb under the minimalist framework. The next section aims at

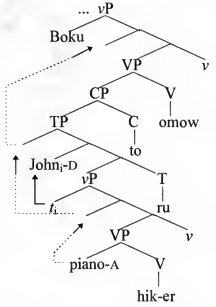
[30] Ura (1994a: 356) acknowledges that example (81) is judged as ungrammatical by some Jananese native speakers. I also notice that the example does not receive a complete grammatical judgment from native speakers that I have encountered. But I will simply follow Ura's judgment for discussion here.

pursuing this issue.

5.4.2. Covert vs. Overt Superraising

The derivation of the examples in (80) and (81) counts as an instance of superraising in that movement of the DSC object, whether covert or overt, takes place across the subject and the tensed embedded clause.[31] As illustrated in chapter 3, superraising here is possible as T creates multiple Specs. Ura (1994a) argues that the object moves to the Spec of Agro (*v* in Chomsky 1995) at LF to check its accusative case feature. The derivation of (81) will be represented as (82) in the framework of Chomsky (1995: §10).

(82) ... *v*P (at LF)



The accusative-marked DSC object first raises into the Spec of the embedded *v* to check its D-feature, further raises into the outer Spec of the embedded T to check its D-feature, and finally moves into the Spec of the matrix *v* to check its D- and case feature. By assumption, the embedded *v* is not responsible for checking any case feature due to the

[31] Refer to the instances of superraising illustrated in detail in chapter 3.

fact that it "selects" VP headed by the psych-verb. Rather, it is the matrix *v* that checks the accusative case feature of the DSC object. As usual, the outer Spec of the embedded T serves as an escape hatch, and thus movement through it does not violate the MLC.

A sharp contrast obtains between (80) and (81). That is, the accusative object of DSC in Korean should always precede the subject as shown in (80); otherwise, the sentence is bad. Consider the counterpart of (80), in which the accusative object of DSC remains in its base position.

(83) * na-nun [Eunmo-eke ton-*ul* manh-tako] sayngkakha-n-ta.
I-TOP Eunmo-D money-*A* much-COMP think-PRES-DEC
'I think that Eunmo has a lot of money'

I take this example to be another piece of evidence in favor of overt movement of OBJ in Korean. This overt movement is due to the strong D-feature of *v*. Here a parametric difference results between the two languages in terms of the feature strength; *v* in Korean is strong, whereas *v* in Japanese is weak.

Now let us look at the derivation of (80). Consider its initial structure (84), in which *v* is attached to the VP dominating V and the accusative THEME.

(84) $[_{vP}\ [_{VP}\ \text{THEME}_{(A)}\ V]\ v]$

By the assumption that *v* in Korean is strong, *v* will attract the accusative THEME into its Spec to check its strong D-feature.

(85) $[_{vP}\ \text{THEME}_{i(A)}\ [_{VP}\ t_i\ V]\ v]$

As assumed above, *v* in (85) cannot check the accusative case feature of the THEME due to the lack of an intrinsic ability to do so. Now the EXP is merged in the (outer) Spec of *v* to receive a theta-role and an inherent dative case.

(86) $[_{vP}$ EXP$_{(D)}$ $[_{v'}$ THEME$_{i(A)}$ $[_{VP}$ t_i V$]$ $v]]$

To (86) is T attached by Merge and it projects two Specs. First, T attracts the dative EXP into its inner Spec and the accusative THEME into its outer Spec in a double Spec configuration.

(87) $[_{TP}$ THEME$_{i(A)}$ $[_{T'}$ EXP$_{j(D)}$ $[_{vP}$ t_j $[_{v'}$ $t_{i'}$ $[_{VP}$ t_i V$]$ $v]]$ T$]]$

The EXP and the THEME check the strong D-feature of T at the inner and outer Spec of T respectively. The accusative case feature of the THEME remains unchecked at this stage.

Now the overt complementizer and the matrix verb are introduced:

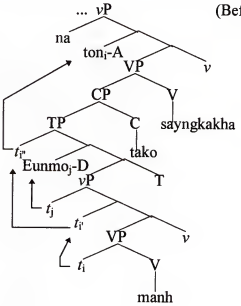
(88) $[_{VP}$ V $[_{CP}$ $[_{TP}$ THEME$_{i(A)}$ $[_{T'}$ EXP$_{j(D)}$ $[_{vP}$ t_j $[_{v'}$ $t_{i'}$ $[_{VP}$ t_i V$]$ $v]]$ T$]]$ COMP$]]$

To (88) is v attached by Merge and it attracts the THEME into its Spec at overt syntax due to its strong D-feature in Korean:

(89) ..$[_{v'}$ THEME$_{i(A)}$ $[_{VP}$ V $[_{CP}$ $[_{TP}$ $t_{i''}$ $[_{T'}$ EXP$_{j(D)}$ $[_{vP}$ t_j $[_{v'}$ $t_{i'}$ $[_{VP}$ t_i V$]$ $v]]$ T$]]$ COMP$]]$ $v]$

Finally, the accusative THEME checks the D- and case feature of v. The whole derivation of (80) could be represented in a tree structure in (90), where verb movement is ignored:

(90) ... vP (Before Spell-Out)



Derivation (90) does not violate the MLC as the THEME raises into the Spec of the matrix *v* through the outer Spec of the embedded T, as desired. Hence, (90) poses no problem under our default case system. However, it yields some theory-internal problems under the case system in which T is responsible for nominative case feature. In the next section, I will delve into the alleged problems.

5.4.3. Tense and Nominative Case Checking

As discussed above, Ura (1994a, 1996) argues that the case feature of T in DSC is checked by the nominative object. Given this, the derivation depicted in (82) and (90) evidently turns out to be illegitimate under a checking theory in that the case feature of the embedded T remains unchecked in the two Specs. As shown in (82) and (90), the dative EXP and the accusative THEME are attracted into the inner and outer Spec of T respectively. When they raise into the proposed position, they cannot check the case feature of T because they bear no matching case feature with T.

Given the assumption by Ura (1994b, 1996) that multiple Specs of a head H are created when H has multiple sets of features to be checked, T's dual case features in (82) and (90) should be checked, overtly or covertly, in these two Specs of T. Since T in his case system is responsible for checking a nominative case feature, the accusative THEME cannot go through the outer Spec of T, voiding it as an escape hatch. An alternative analysis might be the one in which the accusative THEME moves directly into the matrix position from the Spec of the embedded *v*. This derivation, however, will violate the MLC, since the accusative THEME is not in the minimal domain of T.

5.5. Conclusion

In this chapter, we have discussed the aspects of DSC across languages, centering on the issue as to how case marking on the two arguments of DSC is interrelated with their grammatical function. We conclude this chapter as follows. First, the EXP occupies a higher position than the THEME in argument structure of DSC, observing the Thematic Hierarchy in Grimshaw (1990). This hierarchy is reflected in its underlying structure represented within the minimalist syntax, in which the EXP is generated in the (outer) Spec of *v* and the THEME is generated in the complement position of V.

Second, the EXP is a canonical subject of DSC, licensed by entering into a D-feature checking relation with T. Its subjecthood is evidenced by its grammatical behaviors; it can bind a subject-oriented anaphor, and it can control PRO. The THEME is a notional object of the predicate of DSC despite its surface nominative case. The above-mentioned three grammatical criteria can be applied in a parallel way to disprove the subjecthood of the nominative THEME.

Third, the EXP is assigned an inherent dative case by the light verb *v* in the two-layered VP-shell of the predicate that occurs in DSC. Furthermore, the inherent dative case is optionally assigned to the EXP; if the EXP is not assigned dative case in the lexicon, it will be assigned nominative case by default at the PF interface. This assumption plays a crucial role in explaining its case alternation between dative and nominative. The THEME, on the other hand, is assigned nominative case by default in a straightforward manner, since the DSC predicate lacks an ability to assign any case to it. This assumption helps to account for the phenomenon of superraising of the THEME object beyond the EXP subject;

superraising proves to be possible only under our default case system in which T does not require case feature checking in its outer Spec so that it can become a full-fledged escape hatch.

CHAPTER 6
CONCLUDING REMARKS

In this dissertation, I directed all my attention to the workings of a default case mechanism within the combined theoretical framework of the Minimalist Program (Chomsky 1993, 1994, 1995) and Distributed Morphology (Halle and Marantz 1993, Marantz 1996, Halle 1997). Adopting the basic tenets of these two theories, I endorse the notion that all lexical items may be *optionally* assigned morphological case features in the lexicon, and propose that any featureless lexical items obtain such features at the output of a derivation by default to satisfy the Case Filter stated in chapter 2.

By this default case mechanism, SUBJ DPs in Korean and Japanese are proposed to acquire morphological case features at the PF interface by default. Given that the computational system C_{HL} in the minimalist theory is assumed to operate for morphological feature checking, it is highly predicted that SUBJ DPs in these languages do not participate in checking off their case features. This prediction was clearly borne out as we illustrated the feature-checking aspects of ECM constructions, double nominative constructions, and dative subject constructions.

First of all, some proposed languages including Korean exhibit the phenomenon of ECM into a finite CP, case alternation between nominative and accusative, and ECM of nonsubjects. By assuming that SUBJ DPs in these languages are assigned case by default as a last resort, ECM is possible even into a finite CP, in which T is not responsible for nominative case assignment. If a subject DP is assigned an accusative case feature when

it is selected by the numeration, it enters into a checking relation with the matrix *v* during the computation; otherwise, it is not assigned any case feature in the lexicon and spelled-out as default nominative at the output of a derivation. The present default case analysis further finds its explanatory power in ECM of nonsubjects. ECM raising of a nonsubject DP over a subject DP is made possible by "superraising" in the sense of Ura (1994a, 1996), in which it raises into the Spec of the matrix *v* through the outer Spec of T as an escape hatch, causing no violation of the MLC.

Second, Double Nominative Constructions (DNCs) in Korean and Japanese are derived from their genitive counterparts by possessor-raising. With the advent of the Bare Phrase Structure (Chomsky 1994), T is taken to have multiple Specs if it has multiple sets of FFs. The operation "possessor-raising" is substantially incarnated by the notion of multiple Specs of a single T. In this multiple Spec configuration, the whole possessive DP first raises into the inner Spec of T to check its D- and phi-feature, and then the possessor raises into the outer Spec of T to check another set of FFs. The possessor DP is motivated to raise into the proposed position to be licensed as SUBJ by virtue of checking the D-feature of T, which is the licensing mechanism in this dissertation.

Third, the dative EXP argument, not the nominative THEME, is a canonical subject of a Dative Subject Construction (DSC). Hence, the dative EXP DP enters into a D-feature checking relation with T to be licensed as SUBJ. Feature checking between the two is possible by the assumption that the EXP DP is assumed to be assigned inherent dative case by the predicate in conjunction with theta-role assignment, and that inherent case features need not be checked off in the syntax (Chomsky 1995, Ura 1996). The nominative

THEME, on the other hand, is assigned case by default, and it enters into a feature checking relation with *v* to be licensed as OBJ. Due to the fact that its nominative case feature is default, it never enters into a case-feature checking relation with T, which is basically assumed to lack an intrinsic capacity to check a nominative case feature in the proposed languages.

Given that structural case is assigned under a one-to-one mapping relation between a case assigner and assignee, default case assignment naturally takes place in a situation where a lexical DP fails to find its appropriate case assigner/checker. Observing that nominative case appears on DPs when clauses are nonfinite on the one hand, and that nonnominative case like accusative appears on DPs when clauses are finite on the other, we have reached the conclusion that nominative is default. Being default, SUBJ DPs are taken to move not for case reasons but for checking the D(EPP)-feature of T, which virtually enables them to be "superraised" without being stuck in a position where case features are checked. This in turn contributes to building a new insight into licensing DPs by the EPP, not by abstract case.

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